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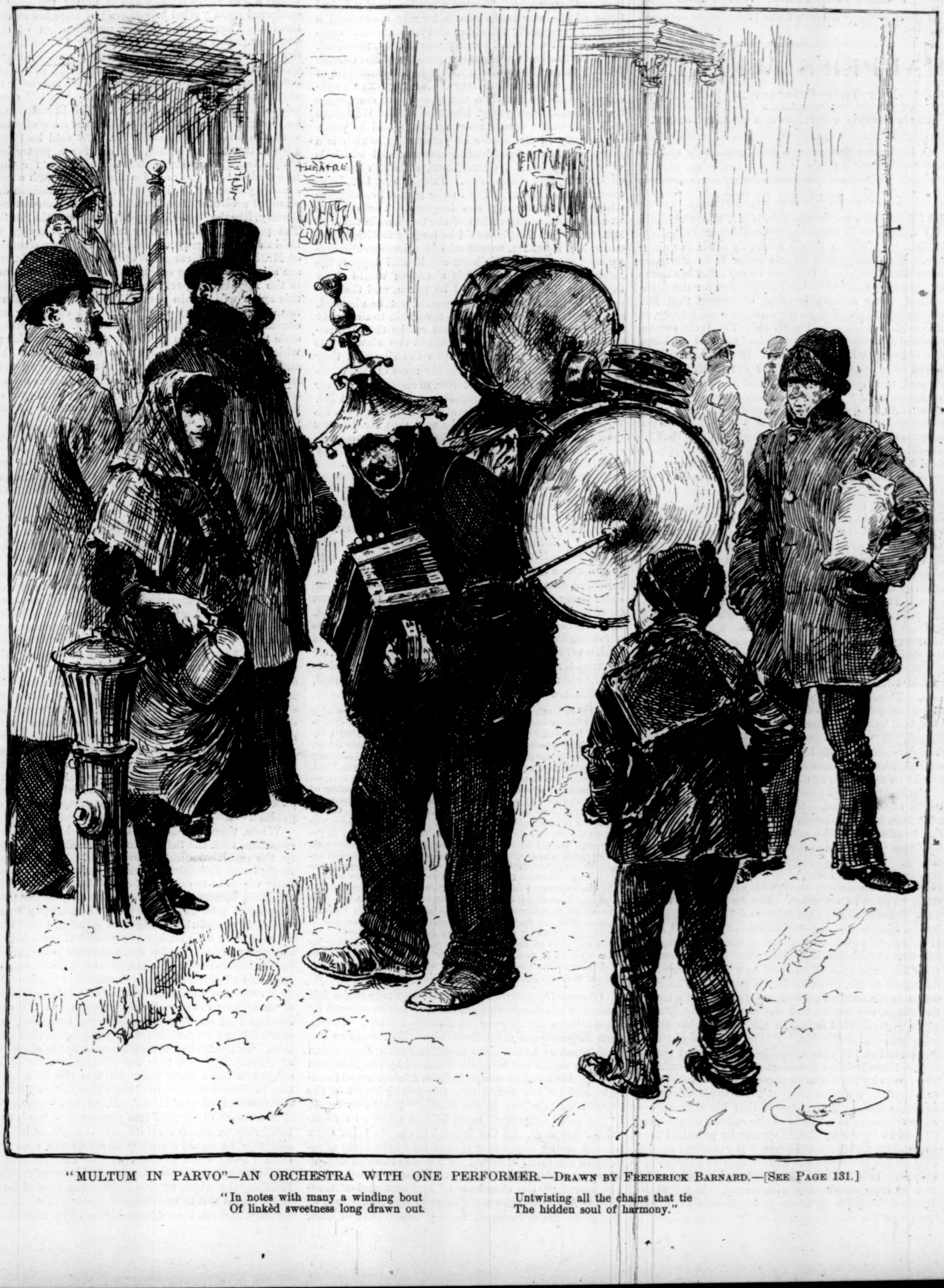

"MULTUM IN PARVO"—AN ORCHESTRA WITH ONE PERFORMER.—DRAWN BY FREDERICK BARNARD.—[SEE PAGE 131.]

"In notes with many a winding bout
Of linkèd sweetness long drawn out.
Untwisting all the chains that tie
The hidden soul of harmony."

"HARPER'S YOUNG PEOPLE has no rival in its variety, amusement-giving quality, and unexceptionable moral tone."—*The Independent, New York.*

HARPER'S YOUNG PEOPLE,

AN ILLUSTRATED WEEKLY.

In the number for February 21st is published the second instalment of "The Household of Glen Holly," the new serial story by LUCY C. LILLIE, *with an illustration by* ALICE BARBER; *"The Power of a Name," a story for Washington's Birthday, by* AGNES CARR SAGE, *with a front-page illustration by* W. A. ROGERS; *and a short story for the younger readers, by* ANNIE A. PRESTON.

In this number is printed the first of three short papers, by BRANDER MATTHEWS, *on "Robert-Houdin, the French Magician."*

WILLIAM BLAIKIE *has an excellent article on "Enlarging the Chest," and Alexander Black, in his series of articles on Photography, writes about "Developing the Negative."*

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NEW YORK, FEBRUARY 25, 1888.

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An ILLUSTRATED SUPPLEMENT *is issued gratuitously with this number of* HARPER'S WEEKLY.

MR. BLAINE'S LETTER.

WE said two weeks ago that if Mr. BLAINE should decline to be named as a candidate for the nomination, his decision would probably settle the question. The publication of his letter from Florence immediately followed, in which he says that his name will not be presented in the Convention for the nomination. Our remark implied, of course, that Mr. BLAINE would prohibit his nomination conclusively, as otherwise nothing would be settled. This is the precise result of his letter. It has decisively settled nothing. The question which it immediately raised, as the remarks of all persons, friendly or not to Mr. BLAINE, showed, was one of sincerity. Did he mean what he seemed to mean? Had he actually withdrawn, or did he intend to say merely that he withdrew if the party really preferred another candidate? This doubt is not surprising, because Mr. BLAINE does not say that he should refuse the nomination if it were offered to him, but only that his name would not be presented—presumably by his desire or request—in the Convention. That this and nothing more might be his purpose and the real significance of his letter was instantly made probable by the remark of the New York *Tribune*, that he withdrew his name "so far as it was in his power to do so." This phrase implies that his friends or his party may not consent to his withdrawal, and that in such an event he has said nothing which would be inconsistent with his acceptance. The *Tribune* followed this remark with the publication of letters demanding his nomination, while his personal friends Senator FRYE and Mr. MANLEY said that the letter did not remove him from the field. In a word, Mr. BLAINE has not said that if after the publication of his letter the Convention should nominate him, he would decline the nomination. This, it seems to us, is the obvious and simple and conclusive form of words which he would have used had he meant that he absolutely renounced the Presidency. But as he said something which is perfectly consistent with his candidacy, he must be considered, like all other candidates for the nomination, to be "in the hands of his friends."

Mr. BLAINE is not an old man, and he is in the maturity of his powers. He is a public man of great ambition, and apparently in good health. He holds the nomination to be equivalent to an election, but he urges personal reasons for not seeking the nomination. If the condition of his health were such that he could not safely accept the nomination or undertake the Presidency, he would certainly say so in order to prevent the offer. But he does not say so. The *Tribune* states that "he was almost dragooned by his friends into the candidacies of 1880 and 1884." If this means that he has not desired a nomination for the Presidency, the statement will be received with the same kind of surprise as a similar statement in regard to Mr. CLAY or Mr. WEBSTER. The Presidency is the natural goal of the ambition of a man of the tastes, the habits, and the career of Mr. BLAINE. If he apprehended defeat in 1880 or 1884, his alleged reluctance is intelligible. But as he holds victory to be assured in 1888, his allegation of personal reasons makes those reasons a subject of curious speculation. That he is by far the most popular Republican leader, and that the nomination is at his disposition, are undeniable facts. They suggest that his reasons may have reference to a doubt of the success of the party should he be the candidate, except by practical party unanimity in the Convention. He predicts success, indeed, but it is upon the assumption of another candidacy. It is evident that the letter is not and will not be interpreted as a withdrawal. But that Mr. BLAINE should wish again to confront such a campaign as his nomination to the Presidency must always impose upon him and the country is highly improbable. It is therefore possible that he prefers not to undertake it, if he must obtain the nomination by a contest.

Mr. BLAINE'S actual withdrawal would leave the Republican party without a leader in the sense of a general and enthusiastic party following. It would leave "a mob of gentlemen," none of whom, however, would run with ease. Among them the most prominent is Mr. SHERMAN. But his relation to the party is very different from that of Mr. BLAINE, and it is not of the kind that would prevent the "stampeding" of the Convention for a hurra candidate like General SHERIDAN. It seems to us an error, however, to suppose that the situation is favorable to a candidacy of that kind, although it might captivate a nominating Convention. The mere partisan and political force of the war traditions is largely spent, and a general hurra and "Sheridan and Shenandoah" campaign would not avail against the sturdy, practical, and conservatively progressive qualities of Mr. CLEVELAND. General SHERIDAN would be the candidate of traditions, not of actual issues. Mr. SHERMAN'S candidacy would be simply a test of national confidence in the Republican party, like that of Mr. HAYES in 1876. It would arouse no enthusiasm, and be wanting wholly in the power of personality, which is a great force in a Presidential canvass, and which is very strong in Mr. CLEVELAND, although he also evokes no party enthusiasm. Despite that fact, however, his real strength lies in the general confidence which his personality has inspired. The canvass would involve a discussion of the tariff, as in those of 1880 and 1884. But it would be largely factitious, because Mr. RANDALL would still be a Democratic orator, and the Chicago *Tribune* would still support the Republican candidate. This situation would show that no radical action would be taken, and the conservative business sentiment would not be alarmed, and that is a condition always favorable to the party in power. Mr. BLAINE does not refuse the nomination should it be offered. This is the view of his friends, and without a change in the situation they will not abandon him. Probably none of them propose, in consequence of the letter, to support any other candidate. It is now generally understood that Mr. TILDEN expected the Democratic nomination after his letter in 1880, and it cannot be said that Mr. BLAINE does not expect or desire the Republican nomination until he says that he would not accept it.

LINCOLN'S BIRTHDAY.

ON the late celebration of the birthday of Mr. LINCOLN the most notable things were said in Brooklyn. They were notable because they were at least signs of a consciousness that it is not by the name but by the spirit of LINCOLN that the Republican party can alone hope to conquer. Of this consciousness, however, there was no trace in the speeches of the chief party leaders. The remarks of ex-Mayor SETH LOW and of General WOODFORD, on the other hand, although very imperfectly reported, seemed to express a feeling in the party which does not control it, and which seldom finds a voice. This is true also of ex-Postmaster-General JAMES'S interview in regard to the BLAINE letter. It may be inaccurately reported, but this is what Mr. JAMES says in the report:

> "As to BLAINE'S talk on the protection question, he adds nothing to what HENRY CLAY said on the subject. It is all well enough to cry 'free-trade' and 'Copperhead' at the Democrats, but I believe in having some common-sense when you look at these things. Heretofore it has been a case like the ox and the bull—nobody dared to tackle the tariff. I believe that there is no use in blinding ourselves to facts. If Europe's labor is cheaper than ours, we have got to do something to protect and uphold the standing of our working-men by protection, but at the same time I think the whole tariff ought to be gone over and corrected. GROVER CLEVELAND has not been afraid of the thing. And the two courageous things that he has done will make him the strongest man in the country. He had the courage of his convictions, and he expressed them in his Message. In addition, he got married. He has absolutely made himself bigger than his party, and the Republicans will not be able to defeat him unless they get some new and important issue that will make them better than the Democrats.... The time is coming for Republican success, but it is not yet. We can afford to suffer a defeat, for all is not lost when honor is saved. The Republican party forgets, too, that there are lots of young men growing up and pressing heavily on our heels. We have lost most of the college element, and the Democratic party has captured it through the independence of CLEVELAND. The Republican party has been depending too much on its record lately, and that sort of thing doesn't do with the new generation."

General WOODFORD said that a free vote and a fair count in the Southern States would not be secured by Republican meetings in the Northern States. Northern Republicans must fraternize with Southern Republicans at home. He thought that a Republican victory would not be again obtained by the Northern vote. He had just returned from Alabama and Georgia, and he had found that the young blood of the South was looking to the North. If all this be so, "the rebel brigadier" must be laid aside as an outworn property, and the Republican party must show to the young blood that it is equal to the tasks of to-day in the spirit of to-day, as it was to those of day before yesterday in their spirit. Nobody who has truly perceived the character of LINCOLN and of Governor ANDREW, who were as good representatives of original Republicanism as any other men of their time, supposes that they would treat the questions of to-day as Mr. SHERMAN and other Republican chiefs treat them. Governor ANDREW said twenty-two years ago, before the reconstruction policy was adopted:

> "The true question is now, not of past disloyalty, but of present loyal purposes.... I only know that we ought to demand and secure the co-operation of the strongest and ablest minds and the natural leaders of opinion in the South. If we cannot gain their support of the just measures needful for the work of safe reorganization, reorganization will be delusive and full of danger.... There ought now to be a vigorous prosecution of the peace—just as vigorous as our recent prosecution of the war."

This was the Republicanism of LINCOLN and ANDREW. It appeared in the general tone of Mr. LOW'S speech at the Brooklyn dinner. He said that it seemed as if the Republican party had risen to its true altitude a few years since when it hailed the honors conferred upon "rebel brigadiers" by Republican authority. That showed true comprehension of the situation. But the protest against Mr. LAMAR'S confirmation as Justice of the Supreme Court by a Republican Senate which had confirmed him as a Cabinet counsellor, and made him a possible successor to the Presidency, was reactionary, and does not commend the party to young voters. The Republicans, he thought, are in danger of making the same mistake with the tariff. Personally Mr. LOW said he stood with GARFIELD, who said, "I am for a protection which leads to ultimate free-trade; I am for that free-trade which can only be achieved through a reasonable protection." But the present Republican demand of protection for the sake of protection is reactionary, like the Republican position toward the South. The party maintains a war tariff. It is trying to hold the ocean at perpetual high tide. These remarks of Mr. LOW and General WOODFORD and Mr. JAMES are all signs that the old spirit is not wholly extinct in the Republican party. But there is no sign that this spirit will obtain control of it. The cry of reform within a party whose aim and character are constantly lowered is a fond delusion. It is impossible to secure reform by supporting the very things which are to be reformed, and a man who sees this and who respects himself will not be whipped into such support by the cry that the alternative is no better. It is the refusal of such support which breaks up the alternative, and compels either a new departure or practical party dissolution.

THE UNITED LABOR PARTY.

THE rupture between Mr. HENRY GEORGE and Dr. MCGLYNN has attracted general attention because of the kind of movement in which they have co-operated, and especially from the possible effect upon the Presidential election of their continued union. The result of the last State election, as Mr. GEORGE has frankly stated, was a surprise and disappointment to him. He made the same mistake that Mr. GREELEY made. Mr. GREELEY was widely known as a sincere friend of working-men and a political "philosopher," and he enjoyed a good-natured personal popularity. He was always applauded in public meetings, and his views were believed to be honestly entertained, and they were clearly and forcibly expressed. But those who acknowledged his sincerity and ability, and were interested in his philanthropic views, were not for that reason ready to renounce their party sympathies and vote for him, and his overwhelming defeat as a candidate was in its consequence pitiful and tragical. Mr. GEORGE'S large vote for Mayor was not the vote of a party. It was largely the expression of personal confidence and of a general protest against certain social conditions. But it was the protest of those who might differ widely as to remedies, or the methods upon which a party could be organized.

When, therefore, Mr. GEORGE and his immediate associates took the field as an organized political party, the result was not encouraging. Yet he is perfectly frank and fair. He says plainly that his primary object is to convince, and that party organization and success, as such, are secondary to the great purpose of persuading the public mind. He would willingly accept the changes in taxation that he advocates from an existing party, and if the action of any party plainly tended to accomplish something of the results at which he aims, he would not embarrass it or imperil those results by interposing another party. Still less would he do this when the adherents of that party differ radically upon one of the chief questions at an election, and when, therefore, they could occupy no position as a party upon that question. In 1860, when the real issue was the extension of slavery and the true constitutional view of the subject, a third party marched into the field under the ludicrous banner of "the Constitution and the enforcement of the laws." If, as Mr. GEORGE believes, the chief issue of this year's campaign is to be tariff reform, which is an important object of his own agitation, he would certainly be an unwise man if he should insist upon taking a course which might retard that reform without achieving any advantage. Holding this view, he thinks that the United Labor party ought not to nominate a candidate for the Presidency, and draw away votes from tariff reform.

Dr. McGlynn, on the other hand, holds that, upon the general platform already adopted, the party should nominate a candidate for the Presidency, and he is evidently gratified to think that such a course would be injurious to the candidacy of Mr. Cleveland. But how the cause in which he professes chief interest, the cause of "Labor," will be benefited by the defeat of Mr. Cleveland, Dr. McGlynn does not say. If he could show this, and by making a Presidential nomination the Labor party could defeat Mr. Cleveland, the Doctor would then have to show why he and his friends could not secure that result more certainly by voting directly for the Republican candidate. Men who hold certain views which they wish to promote need not "stand up and be counted" for a third candidate, if their object is to defeat another candidate. There is always a shorter and a better way to do that. If, on the other hand, this be not their purpose, it is only sensible to ascertain whether their separate action will injure some object which they favor. If this would be the obvious result, wise men would avoid such action. Mr. George, who is an unconditional free-trader, thinks that tariff reform is better than the present high protection, and he is unwilling to do anything that will confirm that protection while it does not advance the exclusive taxation of land, or hasten the abolition of poverty. In the difference between him and Dr. McGlynn, Mr. George shows himself to be the wiser man.

THE LAST COMEDY.

In a speech recently delivered in Boston, Mr. Sherman replied at length to the speech of Mr. Lowell, who presided at the late Tariff Reform dinner in the same city. Mr. Lowell's speech was a general statement of political truths, and a review of the political situation, and purposely avoided, as he said, the detailed discussion of the reform policy, which would be the task of the invited guests. It was a clear, courageous, incisive speech, free from vituperation and unfairness of any kind, bright with good-natured humor, and wholly impersonal, except in one instance, when he said that Mr. Cleveland seemed to him the best representative of the higher type of Americanism since Lincoln. The tone of the speech throughout was lofty, generous, and thoroughly humane and patriotic. To say that it was entirely worthy of the distinguished orator is best to characterize it. There are, of course, wide differences of opinion upon the question of tariff taxation and in regard to Mr. Cleveland, and all that can be justly asked of those who think differently upon the subject is that they shall express themselves with the good temper and generous spirit of Mr. Lowell, although very few can expect to speak with the charm of his manner or his great ability, and with his entire freedom from any suspicion of a mean personal or partisan motive, or expect to illustrate as he did the wisdom of his own words in ending his speech:

> "The reformer of practical abuses springing from economic ignorance or mistakes then first begins to be wise when he allows for the obstinate vitality of human error and human folly, and is willing to believe that those who cannot see as he does are not themselves necessarily bad men."

There was another distinguished citizen of Massachusetts, Daniel Webster, who in his famous oration at Plymouth in 1820, and in his speech at Niblo's Saloon in New York in 1837, stated in the strongest way his abhorrence of human slavery as a man, and as a citizen declared his constitutional opposition to its extension into the new States. He spoke for the conscience and profound conviction of New England, and of intelligent and progressive America. But as the fires of the great antislavery controversy rapidly consumed all other public issues, and the country shook with the agitation, and the gratification of political ambition depended upon servility to the slave power, Mr. Webster said in Boston that Massachusetts must conquer her prejudices against returning fugitive slaves, and on the 7th of March, 1850, in the Senate of the United States, he unsaid his great words at Plymouth and in New York, and in the culmination of the tremendous contest between liberty and slavery for the control of the government and the continent, which was sweeping on to civil war, he threw the weight of his name and his influence as the chief citizen of New England against freedom and the rights of man. It was a tragedy unsurpassed in our political history, of which the enduring commemoration in literature is Whittier's fervent and profoundly pathetic poem, "Ichabod." It was a fall with which the country seemed to tremble, a catastrophe which all the marvellous and dazzling elegiac rhetoric of Rufus Choate could not conceal or diminish, and although Mr. Webster lived for three years longer, he died a disappointed and heart-broken man.

It seems incredible, but it is true, that in the sore exigency of partisan contention, a statesman of ability and experience, like Mr. Sherman, should be guilty of the gross and, as one indignant journal declares, infamous, offence of applying to Mr. Lowell, because he expresses a high opinion of Mr. Cleveland and his approval of reducing the dangerous Treasury surplus by a reform of the tariff, the lines of Whittier upon Webster when he outraged the conscience of New England and "the North," and submitted his head to the Delilah of slavery. Mr. Sherman actually quoted these lines as applicable to Mr. Lowell:

> "Revile him not,—the Tempter hath
> A snare for all;
> And pitying tears, not scorn and wrath,
> Befit his fall!"

If Mr. Sherman had had the smallest sense of humor, he would have led the company at table in a shout of laughter upon a sudden perception of his own absurdity. But the farce becomes still more farcical by the comment of the New York *Tribune*—"This is criticism that will make Mr. Lowell wince, but is it not justified by the facts?" There will be a great deal of comedy during the campaign, but there cannot be anything so ludicrous as all this. It shows in the strongest light the happy condition that we have reached in politics when the honest expression by an eminent American of his comparative estimate of other eminent Americans is solemnly compared by a candidate for the Presidential nomination to one of the most tragical events in our political history, and when it is assumed with equal solemnity that the eminent American, whose sense of humor is remarkable, will "wince" at such utter folly.

THE PAUPER INSANE.

No one who is familiar with the condition of the pauper insane in the county poor-houses but will earnestly approve and advocate the proposal to transfer such patients to State institutions. A bill for this purpose has been introduced in the Assembly by General Curtis. It was drawn by Professor Theodore W. Dwight, who is peculiarly qualified for the task by his long and familiar acquaintance with the whole subject of the care of paupers and criminals, and by his thorough legal accomplishment.

The bill provides for districting the State into as many asylum districts as there are State hospitals or asylums; for the reception by them of all pauper cases of insanity within their district at a specific weekly cost of $1 50, including clothing and travelling expenses; and for the erection of suitable buildings for their accommodation, at a cost not to exceed $250 per capita. The counties of New York, Kings, and Munroe are excepted, because further legislation is needed for their particular condition. The State hospitals are now very full, and a few counties wish to retain the care of their pauper insane. But the State system is so admirable and so amply equipped for the purpose, needing only enlarged accommodation, that a possible return to the horrors of the old poor-house treatment ought not to be considered.

The great improvement in the general care of pauper dependents upon the community during the last twenty years is in much the larger part due to the wise and humane devotion of a small number of citizens throughout the State, who have diligently visited and examined the county jails and almshouses, and whose opinions upon the proper system to be pursued in the care of these hapless dependents is of the highest authority. Their representations should not be confounded with the ordinary petitions of well-meaning but often uninformed citizens. It would be very fortunate for the State if upon every subject of legislation there could be counsel at once so intelligent, so disinterested, and so public-spirited as that which is embodied in this bill.

THE FISHERIES TREATY.

The treaty settling the question of the fisheries was signed on the 15th of February, and Mr. Bayard is stated to have said that it does not provide for the free admission of fish into the United States, nor deal with the question of reciprocity, nor the trouble in the Behring Sea. It is further stated that it takes the view of the three-mile limit which is entertained in this country, abandons the headland doctrine, and admits our vessels to Canadian ports under reasonable and definite conditions which cannot be misunderstood.

We trust that the intimation is correct that the President will recommend the consideration of the treaty in open session. This will satisfy the country. The conclusion of such a treaty is in accordance with the spirit of the age, and with the feelings of patriotic and sensible Americans. The tread-on-my-coat-tail style of statesmanship is not essential to a lofty national feeling nor to a resolute national attitude. Bumptious statesmanship in general is not very effective, and when a difference of this kind arises between nations really friendly, the reasonable recourse is to negotiation or arbitration, not to rhetoric and retaliation.

There is no reason to suppose that retaliatory legislation has promoted a wise settlement, and the good sense of the President in declining to act a "dramatic" part in the exercise of executive authority will be universally approved by sensible Americans. The amicable settlement of this question will be a happy incident for the Administration and for the country.

THE BLAIR BILL IN THE SENATE.

The Senate has passed the Blair bill by a vote of 39 to 29. This sends it to the House under very depressing circumstances. Four years ago it passed the Senate by a majority of 22, and two years ago by a majority of 25. But this year the majority is but 10, and the most powerful and persuasive speeches against it were made by Republicans. Senator Hawley's speech in particular was a very strong plea for the essential principle of the American government, a national Union of locally self-governing States. It was a speech of the kind that makes and changes votes, because it was not only strong, but decisive—a speech of profound conviction.

The Republicans who voted against the bill were Messrs. Aldrich, Farwell, Frye, Hale, Hawley, Hiscock, Ingalls, Jones, Plumb, Davis, Sabin, and Spooner. But the great body of Republicans supported it. Mr. Hale pointed out the fact that the bill grew weaker by discussion, and Mr. Hawley expressed the wish that Senators would vote according to their own views rather than in deference to a supposed public sentiment. But the sentiment of the public, like that of the Senate, is evidently changing. No question has been more fully discussed in the press than that involved in the Blair bill, and no discussion has produced more significant and decisive results.

Mr. Hale well said that the act proposed would not reach those whom it was especially designed to benefit. The great mass of illiteracy among the older freedmen cannot now be corrected. On the other hand, there is no question that the Southern States are mindful of their school systems as never before. And even conceding that such grants of aid to any community—when constitutional—may sometimes be serviceable at some points, there is no question whatever of the immense abuse and mischief and disappointment that certainly attend them. The bill goes to the House with discouragement, and it will hardly pass at this session.

ALAS! POOR NASBY.

The letters of Petroleum V. Nasby belong to a very different class of literature from the ***Biglow Papers***, but like them they have been a very great, and a much more generally popular, force in public affairs. Nasby is a literary creation like Candle, and the author of his being was most kindly regarded by the country during life, and his death is sincerely regretted. The typical Southwestern country Democratic politician appears in Nasby, and the humorous, earnest, good-natured, and incisive satire of his comments is delightful. It is no wonder that Governor Brough during the war refused to commission Mr. Locke as the colonel of a regiment. His pen was sharper than a hundred swords, and, like Nast's caricatures of Tweed, the letters attacked the Copperhead opposition to the war with irresistible fatality. Our politico-literary history will have few names more memorable than that of David Ross Locke.

PERSONAL.

Henry Irving has in times past tendered his London Lyceum Theatre to only two American actors—Edwin Booth and Mary Anderson—but now he adds a new generosity to the list by inviting Richard Mansfield to take the Lyceum for next fall's season. Rarely has any young actor—certainly no young American actor ever has—enjoyed such an auspicious entrance upon the London boards.

—Governor Lounsbury, of Connecticut, is issuing invitations to many distinguished people to be present at the dedication in June of the statue which Connecticut erects in honor of General Putnam.

—Lucky Lily Langtry! She bought a farm in Nevada, bored for a well of water, and struck silver. She has a ledge running from seven to over a hundred feet thick, assaying more than $500 to the ton.

—Frank Bounty, a colored octogenarian who died at Slate Hill, up in Orange County, last week, was sold into slavery when he was eleven years old for a pair of oxen, he being one of the hundred Orange County slaves who became free under the act of final manumission of all bondsmen in New York in 1827.

—Colonel Fred Grant was mustered into a post of Sons of Veterans last week. Colonel Grant is not eligible for membership in the Grand Army of the Republic, for he was not a member of the army during the war, though he was regularly employed before Donelson and Vicksburg in carrying important despatches.

—Ben: Perley Poore's collection of autographs has been sold in Boston, an autograph poem of Robert Burns bringing $90; Ben Franklin's autograph brought $11; Thomas Jefferson's, $2.

—New-Yorkers who have been indulging the hope that Billy Moloney, the go-between used by the Aldermanic boodlers, was getting ready to return to us and help along the exodus toward Sing Sing, will have to abandon that cheerful expectation. The distinguished exile has sailed for Europe, where he proposes a long-extended tour.

—Assemblyman Morgan is distinguishing himself at Albany by moving for the re-enactment of the old law providing imprisonment for debt.

—General F. B. Spinola—he of the famous collar—has been dangerously ill all winter, but is now rapidly recruiting at the Arkansas Hot Springs.

—Mrs. Merritt Trimble, Mrs. George F. Canfield, Miss Ellen Collins, Miss Helen Iselin, Mrs. Henry E. Pellew, Mrs. Everett P. Wheeler, and other live New York ladies, are raising a scholarship fund of $6000 whose interest shall be used to pay the college expenses of the New York woman who each year shall pass the best examination for entrance to Harvard. Thus do broad-minded women seek to foster womanly ambition. The move is one deserving unstinted approval.

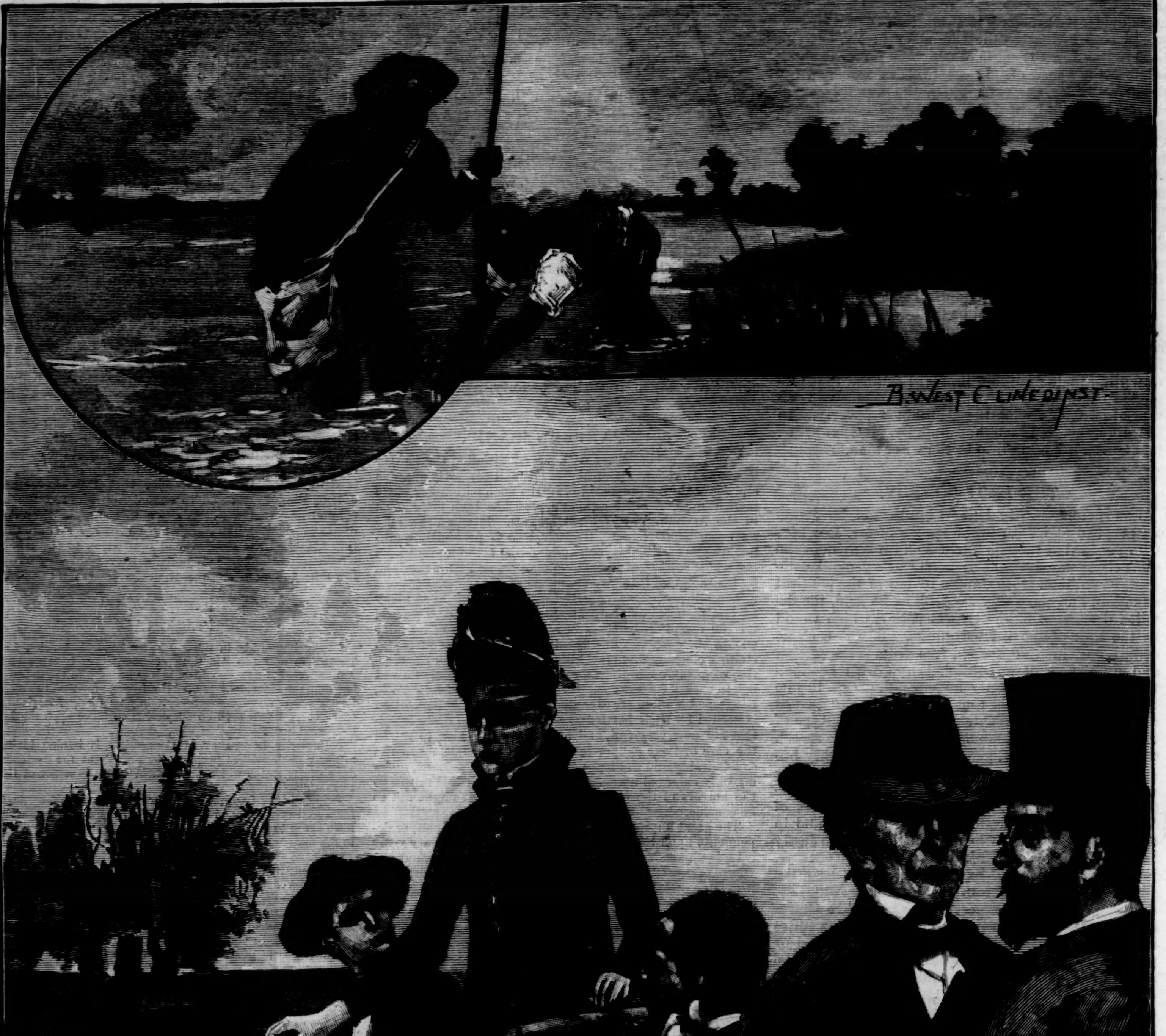
—David Dudley Field's old age does not abate his interest in public affairs. He is just back from a trip to Washington, where he has been impressing upon a Congressional committee what he believes to be the unwisdom of going to Europe for our State names when we are so rich in the musical words of the Indian. New York, he said, was just about the worst name that could have been selected for an American State. President Lincoln, he thought, ought to have insisted that West Virginia was too poor a name with which to admit a new State, when Cumberland and Kanawha were so available; and instead of New Mexico we should have had Montezuma. Wherefore he hopes that hereafter we will have no more such misnamings when Territories apply for Statehood.

—While everybody else in Wall Street is complaining of the unprecedented dulness there, Edmund C. Stedman finds plenty to do. He receives about a hundred letters a week from literary aspirants, submitting their efforts, asking advice, and telling how thankful they would feel for personal assistance from the banker-poet.

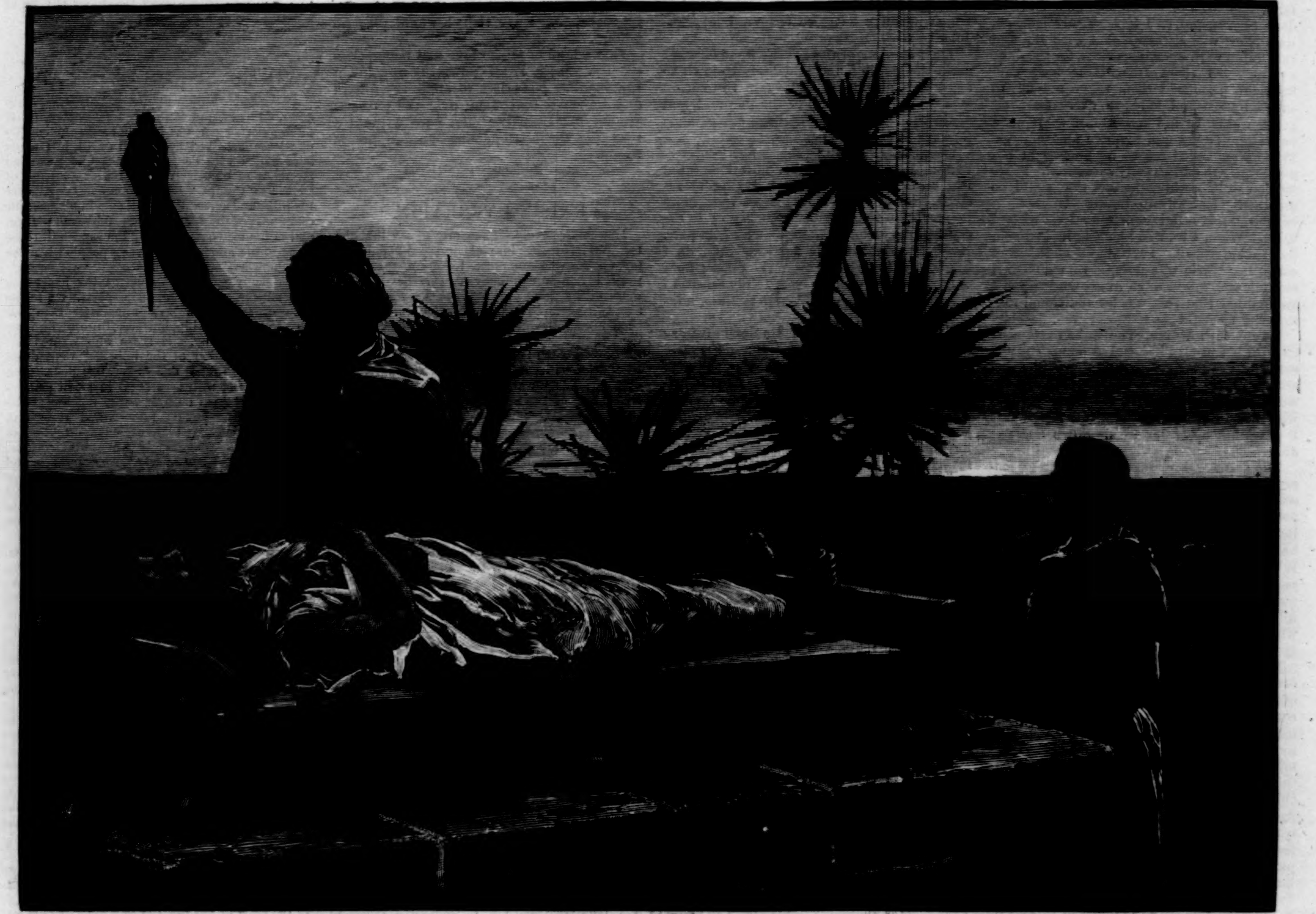
—Captain Charles C. Ford, one of New Haven's favorite militiamen, has been arrested, accused of having "aided and abetted" a lottery by advertising visiting cards for sale with an offer of a gold watch as a prize to the customer who should first send a correct answer to this question: "Which is the longest verse in the Bible?" Prize or no prize, a little searching of the Scriptures would hardly hurt many among us.

—The sensationalists who used to be in a chronic state of explaining that General Arthur was born in Canada now pop up to announce that General Phil Sheridan's birthplace was in Ireland.

—A Washington gossip alleges that Senators Ingalls, Edmunds, Palmer, Vest, Evarts, Hiscock, Vance, and Voorhees have established a singing-school among themselves, taking turns in weekly entertainments, where old-time college songs make the evenings merry.


B. West Clinedinst.

FEEDING AND CATCHING TERRAPIN ON A MARYLAND "FARM."—Drawn by B. W. Clinedinst.—[See Page 130.]



"THEN THE KOHEN RAISED HIS KNIFE AND PLUNGED IT INTO THE HEART OF THE YOUTH."

A Strange Manuscript Found in a Copper Cylinder.*

CHAPTER XI.—(*Continued.*)

THE SWAMP MONSTER.

I WAS senseless for I know not how long. When at last I revived I found myself propped up against a bank, and Almah bathing my head with cold water. Fortunately, I had received no hurt. In falling I had struck on my head but it was against the soft turf, and though I was stunned, yet on regaining my senses no further inconvenience was experienced. The presence of Almah was soon explained. The report of the rifle had startled her bird also, which had bounded away in terror like mine; but Almah understood how to guide him, and managed to keep him after me, so as to be of assistance in case of need. She had been close behind all the time, and had stopped when I fell, and come to my assistance.

The place was a slope looking out upon an arm of the sea, and apparently remote from human abode. The scenery was exquisitely beautiful. A little distance off we saw the edge of the forest; the open country was dotted with clumps of trees; on the other side of the arm of the sea was an easy declivity covered with trees of luxuriant foliage and vast dimensions; farther away on one side rose the icy summits of impassable mountains; on the other side there extended the blue expanse of the boundless sea. The spot where I lay was overshadowed by the dense foliage of a tree which was unlike anything that I had ever seen, and seemed like some exaggerated grass; at our feet a brook ran murmuring to the shore; in the air and all around were innumerable birds.

The situation in which I found myself seemed inexpressibly sweet, and all the more so from the gentle face of Almah. Would it not be well, I thought, to remain here? Why should Almah go back to her repulsive duties? Why should we return to those children of blood, who loved death and darkness? Here we might pass our days together unmolested. The genial clime would afford us warmth; we needed no shelter except the trees, and as for food, there were the birds of the air in innumerable flocks.

I proposed this to her; she smiled sadly. "You forget," said she, "this season of light will not last much longer. In a few more *joms* the dark season will begin, and then we should perish in a place like this."

"Are there no caverns here?"

"Oh no. This country has no inhabitants. It is full of fierce wild beasts. We should be destroyed before one *jom*."

"But must we go back?" said I. "You have a country. Where is it? See, here are these birds. They are swift. They can carry us anywhere. Come, let us fly, and you can return to your own country."

Almah shook her head. "These birds," said she, "cannot go over the sea, or through these endless forests. My country can only be reached by sea."

"Can we not hurry back, seize a boat, and go? I know how to sail over the water without oars."

"We certainly might leave the country; but there is another difficulty. The dark season is coming, and we should never be able to find our way. Besides, the sea is full of monsters, and you and I would perish."

"At any rate, let us try. I have my *sepet-ram*."

"We could never find our way."

"Only tell me," said I, "where it lies, and I will go by the stars."

"The trouble is," said she, "that even if we did succeed in reaching my land, I should be sent back again; for I was sent here as a sacred hostage, and I have been here four seasons."

But in the midst of this conversation a sound arrested our attention—a heavy, puffing, snorting sound, as of some living thing. Hastily I started up, rifle in hand, and looked; and as I looked I felt my nerves thrill with horror. There, close by the shore, I saw a vast form—a living thing—full sixty feet in length. It had a body like that of an elephant, the head of a crocodile, and enormous glaring eyes. Its immense body was covered with impenetrable armor, and was supported on legs long enough to allow it to run with great speed. It differed in many respects from the monster of the swamp—the legs being longer, the tail shorter and thinner, and its head and jaws larger and longer. I shrank back, thinking of seizing Almah and hiding. But I saw that she had already taken the alarm, and with more presence of mind than I had she had hurried to the birds, who were standing near, and had made them lie down. As I turned, she beckoned to me without a word. I hurried to her. She told me to mount. I did so at once; she did the same. Scarce had we mounted than the monster perceived us, and with a terrible bellow came rushing toward us. Almah drove her goad deep into her bird, which at once rose and went off like the wind, and mine started to follow. The vast monster came on. His roar sounded close behind, and I heard the clash of his tremendous jaws; but the swift bird with a bound snatched me from his grasp, and bore me far away out of his reach. Away I went like the wind. Almah was ahead, looking back from time to time, and waving her hand joyously. So we went on, returning on our course at a speed almost as great as that with which we had come. By this time the novelty had in part worn away, and the easy motion gave me confidence. I noticed that we were travelling a wild, uninhabited, and rocky district by the sea-side. Before me the country spread far away, interspersed with groves, terminating in forests, and bounded in the far distance by mountains. The country here was so rough that it seemed as if nothing could pass over it except such creatures as these—the opmaheras.

At length we arrived at the spot which we had left—the scene of the hunt. We could see it from afar, for the opmaheras stood quietly around, and the men were busy elsewhere. As we drew nearer I saw the vast body of the monster. They had succeeded in killing it, yet—oh heavens, at what a cost! One-half of all the party lay dead. The rest were unharmed, and among these was the Kohen. He greeted me with a melancholy smile. That melancholy smile, however, was not caused by the sad fate of his brave companions, but, as I afterward learned, simply and solely because he himself had not gained his death. When I saw that there were no wounded, a dark suspicion came over me that the wounded had again been put to death. I did not care to ask. The truth was too terrible to hear, and I felt glad that accident had drawn me away. It was all a dark and dreadful mystery. These people were the most gentle, the most self-sacrificing, and the most generous in the world; yet their strange and unnatural love of death made them capable of endless atrocities. Life and light seemed to them as actual evils, and death and darkness the only things worthy of regard.

Almah told me that they were going to bring the monster home, and had sent for opkuks to drag it along. The dead were also to be fetched back. There was no further necessity for us to remain, and so we returned at once.

On the way, Almah said, "Do not use the *sepet-ram* again. You can do no good with it. You must not make it common. Keep it. The time may come when you will need it: you are not fond of death."

I shuddered.

"Never forget," she said, "that here death is considered the chief blessing. It is useless for you to interfere in their ways. You cannot change them."

Some more *joms* passed. The bodies were embalmed, and Almah had more victims to crown with garlands in the horrible *cheder nebilin*.

CHAPTER XII.

THE BALEFUL SACRIFICE.

I RESOLVED to go on no more sacred haunts. I was sickened at the horrible cruelty, the needless slaughter, the mad self-sacrifice which distinguished them. I was overwhelmed with horror at the merciless destruction of brave comrades, whose wounds, so gallantly received, should have been enough to inspire pity even in a heart of stone. The gentleness, the incessant kindness, the matchless generosity, of these people seemed all a mockery. What availed it all when the same hand that heaped favors upon me, the guest, could deal death without compunction upon friends and relatives? It seemed quite possible for the Kohen to kill his own child, or cut the throat of his wife, if the humor seized him. And how long could I hope to be spared among a people who had this insane thirst for blood?

Some more *joms* had passed, and the light season had almost ended. The sun had been sinking lower and lower. The time had at last come when only a portion of his disk would be visible for a little while above the hills, and then he would be seen no more for six months of our time. This was the dark season, and, as I had already learned, its advent was always hailed with joy and celebrated with solemn services, for the dark season freed them from their long confinement, permitted them to go abroad, to travel by sea and land, to carry on their great works, to indulge in all their most important labors and favorite amusements. The Kohen asked me to be present at the great festival, and I gladly consented. There seemed to be nothing in this that could be repellent. As I was anxious to witness some of their purely religious ceremonies, I wished to go. When I told Almah, she looked sad, but said nothing. I wondered at this, and asked her if she was going. She informed me that she would have to go, whereupon I assured her that this was an additional reason why I should go.

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* Begun in HARPER'S WEEKLY No. 1620.

I went with Almah. The Kohen attended us with his usual kind and gracious consideration. It seemed almost as though he was our servant. He took us to a place where we could be seated, although all the others were standing. Almah wished to refuse, but I prevailed upon her to sit down, and she did so.

The scene was upon the semicircular terrace in front of the cavern, and we were seated upon a stone platform beside the chief portal. A vast crowd was gathered in front. Before us arose the half-pyramid of which I have already spoken. The light was faint. It came from the disk of the sun, which was partly visible over the icy crest of the distant mountains. Far away the sea was visible, rising high over the tops of the trees, while overhead the brighter stars were plainly discernible.

The Kohen ascended the pyramid, and others followed. At the base there was a crowd of men, with emaciated forms and faces, and coarse, squalid attire, who looked like the most abject paupers, and seemed the lowest in the land. As the Kohen reached the summit there arose a strange sound—a mournful, plaintive chant, which seemed to be sung chiefly by the paupers at the base of the pyramid. The words of this chant I could not make out, but the melancholy strain affected me in spite of myself. There was no particular tune, and nothing like harmony; but the effect of so many voices uniting in this strain was very powerful and altogether indescribable. In the midst of this I saw the crowd parting asunder so as to make way for something; and through the passage thus formed I saw a number of youths in long robes, who advanced to the pyramid, singing as they went. Then they ascended the steps, two by two, still singing, and at length reached the summit, where they arranged themselves in order. There were thirty of them, and they arranged themselves in three rows of ten each; and as they stood they never ceased to sing, while the paupers below joined in the strain.

And now the sun was almost hidden, and there was only the faintest line from the upper edge of his disk perceptible over the icy mountain-tops. The light was a softened twilight glow. It was to be the last sight of the sun for six months, and this was the spectacle upon which he threw his parting beam. So the sun passed away, and then there came the beginning of the long dark season. At first, however, there was rather twilight than darkness, and this twilight continued long. All this only served to heighten the effect of this striking scene; and as the light faded away I looked with increasing curiosity upon the group at the top of the pyramid. Almah was silent. I half turned, and said something to her about the beauty of the view. She said nothing, but looked at me with such an expression that I was filled with amazement. I saw in her face something like a dreadful anticipation—something that spoke of coming evil. The feeling was communicated to me, and I turned my eyes back to the group on the pyramid with vague fears in my soul.

Those fears were but too well founded, for now the dread ceremony began. The Kohen drew his knife, and placed himself at the head of the stone table. One of the youths came forward, stepped upon it, and lay down on his back with his head toward the Kohen. The mournful chant still went on. Then the Kohen raised his knife and plunged it into the heart of the youth. I sat for a moment rooted to the spot; then a groan burst from me in spite of myself. Almah caught my hands in hers, which were as cold as ice.

"Be firm," she said, "or we are both lost. Be firm, Atam-or!"

"I must go," said I, and I tried to rise.

"Don't move," she said, "for your life! We are lost if you move. Keep still—restrain yourself—shut your eyes."

I tried to do so, but could not. There was a horrible fascination about the scene, which forced me to look and see all. The Kohen took the victim, and drawing it from the altar, threw it over the precipice to the ground beneath. Then a loud shout burst forth from the great crowd.

"*Sibgu Sibgin! Ranenu! Hodu lecosek!*" which means, "Sacrifice the victims! Rejoice! Give thanks to darkness!"

Then another of the youths went forward amid the singing, and laid himself down to meet the same fate; and again the corpse was flung from the top of the pyramid, and again the shout arose. All the others came forward in the same manner.

Oh, horrible, horrible, thrice horrible spectacle! I do not remember how I endured it. I sat there with Almah, trying to restrain myself as she had entreated me, more for her sake than for my own, a prey to every feeling of horror, anguish, and despair. How it all ended I do not know, nor do I know how I got away from the place; for I only remember coming back to my senses in the lighted grotto, with Almah bending anxiously over me.

After this there remained a dark mystery and an ever-present horror. I found myself among a people who were at once the gentlest of the human race and the most bloodthirsty—the kindest and the most cruel. This mild, amiable, and self-sacrificing Kohen, how was it possible that he should transform himself to a fiend incarnate? And for me and for Almah, what possible hope could there be? What fate might they have in reserve for us? Of what avail was all this profound respect, this incessant desire to please, this attention to our slightest wish, this comfort and luxury and splendor, this freedom of speech and action? Was it anything better than a mockery? Might it not be the shallow kindness of the priest to the victim reserved for the sacrifice? Was it, after all, in any degree better than the kindness of the cannibal savages on those drear outer shores who received us with such hospitality, but only that they might destroy us at last? Might they not all belong to the same race, dwelling as they did in caverns, shunning the sunlight, and blending kindness with cruelty? It was an awful thought!

Yet I had one consolation. Almah was with me, and so long as she was spared to me I could endure this life. I tried for her sake to resist the feelings that were coming over me. I saw that she too was a prey to ever-deepening sadness. She felt as I did, and this despair of soul might wreck her young life if there were no alleviation. And so I sought to alleviate her distress and to banish her sadness. The songs of these people had much impressed me; and one day, as I talked about this with Almah, she brought forth a musical instrument of peculiar shape, which was not unlike a guitar, though the shape was square and there were a dozen strings. Upon this she played, singing at the same time some songs of a plaintive character. An idea now occurred to me to have an instrument made according to my own plans, which should be nothing less than a violin. Almah was delighted at the proposal, and at once found a very clever workman, who under my direction succeeded in producing one which served my purpose well. I was a good violinist, and in this I was able to find solace for myself and for Almah for many a long hour.

The first time that I played was memorable. As the tones floated through the air they caught the ears of those outside, and soon great numbers came into the apartment, listening in amazement and in rapt attention. Even the painful light was disregarded in the pleasure of this most novel sensation, and I perceived that if the sense of sight was deficient among them, that of hearing was sufficiently acute. I played many times, and sometimes sang from among the songs of different nations; but those which these people liked best were the Irish and Scottish melodies—those matchless strains created by the genius of the Celtic race, and handed down from immemorial ages through long generations. In these there was nothing artificial, nothing transient. They were the utterance of the human heart, and in them there was that touch of nature which makes all men kin. These were the immortal passions which shall never cease to affect the soul of man, and which had power even here; the strains of love, of sadness, and of pathos were sweet and enticing to this gentle race; for in their mild manners and their outbursts of cruelty they seemed to me to be not unlike the very race which had created this music, since the Celt is at once gentle and blood-thirsty.

I played "Tara," "Bonnie Doon," "The Last Rose of Summer," "The Land of the Leal," "Auld Lang Syne," "Lochaber." They stood entranced, listening with all their souls. They seemed to hunger and thirst after this music, and the strains of the inspired Celtic race seemed to come to them like the revelation of the glory of Heaven. Then I played more lively airs. Some I played a second time, singing the words. They seemed eager to have the same one played often. At last a grisly thought came to me: it was that they would learn these sweet strains, and put their own words to them so as to use them at the awful sacrifices. After that I would play no more.

It is a land of tender love and remorseless cruelty. Music is all-powerful to awaken the one, but powerless to abate the other; and the eyes that weep over the pathetic strains of "Lochaber" can gaze without a tear upon the death-agonies of a slaughtered friend.

[TO BE CONTINUED.]

RAISING TERRAPIN.

It would scarcely be accurate to say that the terrapin has leaped into international popularity, but no one who knows the history of the much-praised reptile can deny that it has crawled there with a great deal of success. Forty years ago, two or three thousand dollars would have been a very liberal estimate of the sales made from the Chesapeake Bay. To-day the value of the annual catch from this body of water and its tributaries will exceed a million and a half of dollars. The Chesapeake, the largest and most interesting of the indentations on the Atlantic coast, furnishes three great delicacies to the world—terrapin, canvas-back duck, and oysters. All of these are shipped to points in every section of this country and to Europe. A canvas-back duck never acquires the perfection of flavor which epicures so fervently admire until it has several weeks of feeding in the Chesapeake. The same is true of the terrapin. Both facts come from the same cause, and that is the abundance of water-celery or water-cress, which grows in submerged fields on the muddy flats, shallow bays, and estuaries of the Chesapeake. Wherever this celery grows, terrapin are found. They have been in the bay from time immemorial, but it has been only within the past half-century that they have been appreciated. Old Maryland records show that the slaves on one or two estates used to rebel because they were given terrapin instead of pork. Gradually, however, the dish has secured the recognition that it deserves, and to-day it is known and appreciated in both hemispheres. President **Cleveland** gets terrapin from Baltimore, and so do all the rich entertainers of this country and Europe. Many New-Yorkers get prepared terrapin by the barrel from the *chef* of the leading club in Baltimore.

The demand for this delicacy has emboldened several gentlemen to start terrapin farms. As a money-making enterprise a farm of this sort is not a success, but in the matter of accommodation and interest it is a very valuable feature of any estate. Perhaps the most successful one in Maryland consists of a salt-water lake large enough to contain a thousand or more terrapin. Boxes partly filled with sand, and arranged so that when the females enter they cannot get out until taken out are the hatcheries. Young terrapin are kept in the nursery ten months or a year. One of the terrapin's greatest traits is his curiosity, and this enables the owner of the farm to train them so that they will readily respond to his call. The illustration shows the visit of a party to the farm at feeding-time. The food generally consists of crabs ground into a powder and kneaded into pellets.

The terrapin season extends from about the middle of November until the 1st of April. About five hundred men catch over six hundred thousand terrapin each year. Very frequently, during the summer, people along the bay catch terrapin and pen them up until the legal season opens, but these terrapin are of a very inferior quality, because, to be really good, a terrapin must always be "fresh caught." The ways of capturing this reptile are many. The favorite is the old method of a pronged stick that resembles Neptune's trident. The expert, who is generally a colored man, prods this stick in the mud until he feels something move, and then he reaches down and hauls forth a diamond-back. Sometimes around marshes several terrapin are taken from one bed. Iron dredges and loaded seines are used with success. Of course terrapin are in a lethargic condition in cold-weather months. They eat enough in spring, summer, and fall to enjoy a winter of repose. A Baltimore dealer securely nailed up two terrapin at the beginning of winter, and did not open the box until the following spring. They had had in that time no food or drink. When the box was opened, one weighed exactly the same as at first, and the other had gained two ounces. A gentleman on the Eastern Shore of Maryland buried twenty-six terrapin about eighteen inches deep, on the 1st of June. In December he resurrected them, and found them alive, fatter, and in better condition to eat than when they were placed underground. Many rich people in Maryland put a large number of terrapin in their cellars at the beginning of winter, and use them as the exigencies of the table require.

The "Maryland terrapin" that one gets in the average restaurant is an imitation and a sham. Even in Baltimore restaurants the humbug is practised. Those dishes are made from little "no-'count" or "bull" terrapin, under-sized specimens that lack the flavor of the real article. To be good, a terrapin should measure at least six inches across the back. A seven-inch terrapin is called a "count," and all others are sold according to size. Experience of a very fine order is required to cleanse a terrapin successfully. It should always be killed by plunging it headforemost into a pot of boiling water. The more simply the dish is cooked the better, for the terrapin unadorned is adorned the most. The female is preferable to the male because of the eggs. This season's supply is as large as ever, and shipments are being made from Baltimore to all parts of this country and Europe. A favorite Christmas present from a Maryland man to a Northern friend every December is a lot of a half-dozen or a dozen of these reptiles.

Lynn R. Meekins.

WINTER SPORTS IN CANADA.

In Canada, winter sports usually commence about January, and end some time in March. If in some other parts of the continent the coming of winter is looked upon with dread, in Canada it is hailed with delight. Visions of gleaming stretches of blue ice thronged with skaters; of snow-shoe tramps "under moon and stars," over the hills, and across the fields, clad in picturesque costumes; of the delirium of the toboggan plunge, and of the ice-boat outsailing the wind—all these come to the minds of the young people when the first snow-flakes are seen.

For many years past tobogganing has taken pre-eminence among Canadian sports. Up to the time of Lord Dufferin's appointment to the Governor-Generalship, however, little was known about tobogganing, and those who wanted the "wild exhilaration of the hill-side" went down upon uncouth and dangerous bob-sleds. But Lord Dufferin, with astuteness in small matters as well as in great ones, saw that much could be done in adding picturesqueness and interest to Canadian sports, and he gave his attention to tobogganing. Accordingly, when winter came, cards were issued to society people living in and about Ottawa, announcing that their Excellencies would be "at home" in the afternoon from three to six o'clock, or in the evening from nine to twelve. "Tobogganing" was written on the lower left-hand corner of the card.

Within the viceregal grounds are three toboggan slides, sloping so that there is a good run from the foot of the steep. It would be impossible to imagine a more picturesque sight than that presented at Rideau Hall in the evening at one of these viceregal toboggan parties. About nine o'clock the guests begin to arrive, a great many of them dragging their toboggans, and all clad in appropriate costume. If the night be very cold, as it is pretty certain to be, a huge fire, consisting of many cords of wood, built like a huge pyramid by crossing the logs, is lighted below the Hall. Near by are the slides; round about are the great primeval pines. Frequently at one of these evening gatherings the mercury marks from 15° to 20° below zero, but so still is the air that you are unaware of the intense cold. Let your ear be exposed, however, and it whitens and becomes rigid without giving warning. Of course every one who attends these "at homes" does not go down the slides, and it is for the benefit of such ones that the huge fire is lighted. But all go in costume; and while the toboggans go lunging down the steeps, the non-participants stand in the glow of the fire, the crimson and blue and white of their costumes forming a brilliant contrast to the background of pines and dancing shadows.

Along each slide hangs a double row of Chinese lanterns, and the sober, unflickering glare is a sort of rebuke to the mad speed of the toboggans. Most of the toboggans used carry three—two ladies and the steerer. The latter does not sit upright, as he is represented in some recent pictures, but throws himself upon his breast, his left knee upon the toboggan, his right leg stretched out behind, so that he may with a touch of his moccasined toe be enabled to steer the toboggan. As for the plunge down one of these sheer steeps, the pleasure is in the sensation. It is true that for the first few times you go down your heart and interior economy seem to rise in your throat, and a terrifying void seems to be left where your heart ought to be; you see the lights, the walls of the slide, the returning toboggans, but all are blended like the colors in a kaleidoscope. You are only beginning to be conscious of the descent when it is all over. I have heard many a girl, after making her first descent, exclaim, as the toboggan stopped, "Oh, how lovely!" when there is nothing more certain than that she was almost terrified out of her sweet young life. Then begins the slow trudge up the nigh interminable steps, the rush past you, the plunge of your own toboggan down again, and again the laborious ascent. It is the circuit of Jacob's ladder with a more swift-throbbing heart, with a greater tension of the muscles. But there is not anywhere in the world a prettier sight than a pair of rosy-cheeked girls going down a toboggan slide, their tuque tassels streaming behind them, their eyes gleaming with the exhilaration of the sport. And what perfect trust they repose in the steerer, even though he often has to steer his precious charge through many a danger! I shall never forget the mishap of two Senators who appeared one evening at the head of the Rideau slide. They came with a new outfit of everything, and as they had in years gone by gone down in bob-sleds "away back," they got upon their costly toboggan with the most supercilious self-possession. But both of them *sat* upon it. It took them a long time to get started, and there was much well-bred tittering at the head of the slide. They got away, however. Then the spectators saw away down the icy trough two black objects rolling from side to side, and those below were astonished to observe two huge men come rolling and moaning down among them. They were put upon their legs, and both, in a half-dazed way, made for their carriage.

The costume of the tobogganer is becoming much more picturesque now than it was some years ago. The ugly white and blue tunic is giving way to warm myrtle brightened with cardinal or cardinal-lake, to blue and red, or to gray enlivened by suitable combinations. The moccasins used in Canada are nearly always buff, and very effective steering is done without the aid of the toe-piece. A tuque, a tunic, a long thick sash, black hand-knitted stockings, knickerbockers, and moccasins, of course, constitute the attire of the male tobogganer. A lady wears a tunic, a sash, a tuque, and moccasins.

While one portion of the guests are enjoying themselves at the slides, the viceregal rink, a short distance away, presents a very attractive spectacle. Skaters engage in a series of very graceful movements to the time of music, and each skater carries fireworks, and sends into the air little spheres of red, emerald, blue, and white light. Lord Lansdowne is devoted to skating, having learned since he came to Canada, but he once received a fall which laid him up for a week. The skaters, of course, skate in costume. A little past eleven the merrymakers return to the Hall, take claret-cup or coffee, and then go home.

Tobogganing in Canada is not confined to Ottawa, but it is seen at that city in its most attractive aspects. Montreal, Quebec, Toronto, and other cities have fine natural slides and some artificial ones. In many places, notably in Montreal, the mere downright pitch of the toboggan is not exciting enough; the young folks must needs put ice obstacles—*cahots*—in the way. The toboggan rears over these like some mad thing, and the girls declare that it is "jolly."

Snow-shoeing is practised all over Canada. The costume of the snow-shoer differs little from that of the tobogganer, nevertheless each club has costume colors distinctively its own. About the beginning of the year the snow-shoers make ready for their tramps, and some evening, after a heavy snowfall, from fifty to a hundred blanketed members meet in some square or park, each one carrying his snow-shoes slung behind his back. On special parades or on very dark nights each carries a torch. Ladies take part in informal tramps, and on such occasions the trampers have a habit of pairing off as they do in the picnic season, when it is warm and the leaves are green. Indeed, these snow-shoe marches seem to quicken the impulses of lovers, and many a fervid young snow-shoer, with only the white plain and the silence of the wintry night around him, confesses his love, and asks the bright-eyed girl by his side to be his wife. It is surely royal sport, when the snow is deep and soft, when man and beast sink to the knees, to see laughing, red-cheeked girls and men and boys running lightly as squirrels along the snow and over the fence-tops. The sport is most healthful, and there is no opportunity for serious accidents.

Next to snow-shoeing comes skating. In Canada every man, woman, and child can "skim on steel," and nature furnishes the hardest and bluest of ice and boundless rinks.

Ice-boating has grown much in popularity during the past few years, and at almost every city along the lakes—notably at Toronto—a fleet of ice-boats is to be seen. When the wind freshens, parties of young people proceed to the ice; four or five stow themselves in the bottom of a boat, stretching out at full length. When they are snugly covered with buffalo-robes the craft is cast loose. I do not remember the exact rate of speed, but I think about a mile a minute, on good ice, with a stiff breeze, is about the average. Peeping out from the boat one cannot get an idea of the speed, as there are no objects to mark it. But looked at from the distance, one of these boats resembles a bird with huge white wings skimming over the ice.

A notable feature of Canadian winter life is the extent to which picturesque costumes are worn in the streets. You will see hurrying by you, here and there, every morning, a healthful-looking girl with a roll of music under her arm, or still another who is making a morning call, clad in a fetching tunic, her feet covered with bewitching little moccasins. Numbers of the civil service clerks at Ottawa go to their offices in the tobogganer's costume, and they work at their desks in knickerbockers. Lord Lansdowne drives through Ottawa with a flowing red sash tied around a black cover-coat, and the aids and hundreds of citizens follow his example. Indeed, in severe winter weather almost every Canadian street is picturesque.

Edmund Collins.

THE ONE MAN ORCHESTRA.

There are thousands of hand-organs whose cranks, manipulated by Italians, squeal, squall, and wheeze in the streets of New York, but never more than a single One Man Orchestra. It might be that the appetite for music becomes satiated, or at least satisfied, by means of the organ, assimilating its noise as it would beef and bread, while the crash of the One Man Orchestra serves for a stimulant, as would pepper. There seems to be some reasonable ground for a theory of this kind, because no one ever was known to listen to the One Man Orchestra but for a limited period. It must be, then, by some wise provision of nature that but few One Man Orchestras are born, or if born, are allowed to mature. The peripatetic septette, as Mr. Barnard has drawn him, produces his effects by means of an accordion, a bass and a side drum, Moorish bells, cymbals, tambourine, and a gong. One most gifted individual has been seen, or rather heard, who heightened the effects of his musical blizzard by the addition of pandean pipes. What ever became of this cacophonous octette will never be known. His disappearance was such a relief that his fate, terrible as it probably was, was not inquired into.

The One Man Orchestra, who is his own Theodore Thomas or Walter Damrosch, and complete band, depends mostly on his startling effects. He dispenses with what are the *andante* or *moderato* movements, and goes in heavy for the *crescendo*. If occasionally his false accordion attempts a recitative, it is but the wail of a few sparse dispiriting notes, which act as an introduction to a crash—bang—boum! It is strictly a music of co-ordination, a music of physical impulses. Does not everybody know how hard it is to simultaneously scratch with one hand and pat with the other hand? By dint of hard work the One Man Orchestra has overcome all such difficulties. The instruments are diverse. He blows on one thing and whacks several others. He must be quick-witted, for he has overcome what is known as the personal equation. In an instant from that wonderful head of his fly the thoughts which work his lips, his elbows, his hands, his feet, his knees. Talk of the divided mental powers of the late Liszt or the present Hoffman! The One Man Orchestra is indeed the perfection of articulated training adapted to percussion. It may not be music which he produces, but all the same, if you could look at him with your ears stuffed with cotton, he would be an exhilarating spectacle.

The One Man Orchestra may draw a crowd, but, for the reasons before mentioned, it never is a staying one. Little children hold the performer in too great awe to dance to his music. If people linger for a while and give him pennies, it is not because they like his music, but have some kind of latent sympathy for the man, which often finds expression in this guise: "He earns his money, now mind I tell you," or "That's a heavy job, that there chap's undertook."

Some years ago there was a One Orchestra Man of gallant mien. He wore the full-dress uniform of a Prussian soldier, and was as trim and spruce as on parade. He figured for a short time in certain streets of New York not generally frequented by ambulant musicians. This fellow was more strident, noisy, clanging, ear-splitting, and fulminating than the most stentorophic of German bands. But he too disappeared. We should not like to lift again that veil of mystery which enshrouds his fate, nor hold envious German bands responsible for his vanishment; but—We do not in tracing the history of the One Man Orchestra advance the idea that he has existed in all times. We have too much respect for our forefathers to believe that. He may have been sporadic, semi-occasional, never a constant factor of human civilization.

It may be observed that Mr. Barnard has put the single smile in the picture on the face of the little girl with the beer mug. Youth is appreciative. All the rest of the people express either astonishment or indifference. Even the wooden Indian at the tobacco stand shows surprise. The man with the fur collar is simply amazed and not pleased. Poor old One Orchestra Man! Though it be freezing weather, it is a satisfaction to know that in the exercise of your physical functions you are quite certain to warm yourself, though you do send cold shivers through the marrow of those who are forced to hear.

THE COLOSSAL STATUE OF PENN.

One man dominated the fortunes of no single State in the present Union during the colonial period as William Penn towered above the beginnings of Pennsylvania. The four partners with him in the grant of West New Jersey, the Friends Eldridge, Warner, Gawry, and Nicholas, are never heard of, whilst Penn has received all the honors. This was natural enough when we consider that this grant, signed by the King in 1681, was really a settlement of a debt incurred by Charles II. to Admiral William Penn, that ready adventurer having obliged him with some £15,000. Moreover, William Penn, the son, was a greater man in England, Ireland, and Holland than in the American colonies. As a pamphleteer of great pertinacity and abusiveness, as a martyr to the bigotry of the Church of England, as a champion of the freedom to practise what religion any man chose, "in prisons often," William Penn would have left a great name whether he had ever crossed the ocean or not.

Penn crossed for the first time in 1682 as "proprietary" and governor of the land not too accurately defined, which was supposed to lie west and southwest of West New Jersey, and not to encroach on the domain of Lord Baltimore. The assembly he started laid the foundations of democratic policy in government and freedom of worship, which were sadly wanting in the New England colonies. He remained two years, and returned once more from Europe at the close of the century, when it was found that his assembly was no longer the well-conducted body he expected: "a very mixed body of all nations," remarks a recent essayist. Pennsylvania and Philadelphia, the State and city which he founded, have good reason for self-congratulation that there is for them so illustrious and manly a figure to serve as memorial of their origin.

In big, spreading Philadelphia the big City Hall is to have a finial on its topmost peak thirty-six feet high. This finial is a statue of William Penn, modelled by Calder, the sculptor of the equestrian General Meade in Fairmount Park. The Quaker statesman will have at his feet the great mass of the City Hall, a mountain of masonry, and see spreading all about him the checker-board pattern of the streets of Philadelphia, sober and exact as the ideals of the sect to which he belonged. He will wear the broad-brim which, on his return from Ireland at the age of twenty-three, he refused to doff before his father or the Duke of York or the King—that hat which procured him terms of imprisonment from indignant judges, and whose history, far more authentic than the Swiss legend, entitles it to a place in legendry beside the head-covering on a pole before which the other William, namely William Tell, refused to bow. He is clad, of course, in the smallclothes of the period, a collarless coat, whose sleeves hardly come below the elbow, and there flower out into large cuffs showing the full sleeves of the shirt. He wears low shoes with rosettes, and a lace cravat with square cords. The waistcoat is very long. Penn stands with one hand gesticulating, as in speech, and with the other holding a scroll, representing the charter of the city of Philadelphia. He is telling the city of Brothers that no matter what inroads have been made on the Quaker fraternity by the pomps of this world, no matter how many backsliders have gravitated into the folds of Episcopal prelacy and the Romish faith, they can console themselves that their title to land and municipal rights are clear, for here is the proof in Penn's own hand!

The sculptor has not taken Penn in middle age, at the period of his life when he came to America, but selected the early years when the youth, although strongly moved already by the doctrines of Thomas Loe and John Owens, was a soldier rather than an apostle of peace. He selects the famous portrait in armor which belongs to his martial period, the Irish period. Oliver Cromwell having granted to Admiral Penn certain estates in the south of Ireland worth about $1500 per annum, the young Penn was sent in 1666 to the provincial court of the Duke of Ormonde to look after the estate. By that time he had signalized himself by getting expelled from Oxford for refusing to listen to prayers, beating fellow-students and tearing their vestments, and for receiving at his father's, the doughty Admiral's hand, a sound drubbing. Sent to France, he studied Calvinism and the art of being well dressed. Then he saw military service with his father, and then the great plague came along to set him toward religion again. It was to overcome this second relapse into Quakerism that Admiral Penn packed him off to Ireland.

The sculptor is thus at fault in choosing the fighting period for a statue of Penn in Philadelphia. And yet, odd as it may seem, Penn at that very time was brandishing a sword with one hand and pledging universal peace with the other. The Quaker society has been very successful in Ireland; it was there that Thomas Loe finally won Penn over to the belief in "inward light." An anecdote of the period when the portrait in armor was painted will explain the man and his contradictions. Penn was liked by the Duke of Ormonde, was offered command of a regiment, and suffered himself to be depicted in armor; yet at a meeting of Quakers in Cork, when a soldier created a disturbance, young Penn seized him and thrust him out with much violence. The sequel was characteristic too. The soldier complained of the trespass on his sacred person, and William Penn was thrown into prison.

Penn was a good representative of Pennsylvania by blood, for his father was a choleric Welshman and his mother a Hollander. Little did he think that a grateful city would raise to him a bronze statue thirty-six feet high when he left these shores, aboard the *Dalmahoy*, November 1, 1701. Mr. Calder has made a working model for this colossal figure nine feet high, and will model the clay original in a room of the City Hall thirty-one feet high. The ceiling will have to be cut in order to show the figure entire. The portrait in armor after which the face is modelled is in the possession of the Historical Society of Pennsylvania, having been presented by Granville Penn, a grandson. It may be mentioned that the Penns were pensioned in 1790, receiving £4000 per annum, but in 1884 this annuity was commuted for a lump sum of £67,000.

Mr. A. M. Calder, the sculptor, is a native of Aberdeen, Scotland, a pupil of the Pennsylvania Academy of the Fine Arts, and a student of sculpture in London and Edinburgh. He has modelled all the figures in the new City Hall. Although so large, the statue will not seem colossal when viewed at the great height where it will stand. It will give the crowning touch to a work that has been years in perfecting, and is regarded by Philadelphians with much pride.

THE OTHER GIRL.

The scene—a box theatrical.
  The actors—*He* and *She*,
The *Other Girl*, a dainty fan,
  And a chaperon for three.

She sits beside the *Other Girl*,
  And *He* is just behind,
While in the rear the chaperon
  Is trying to be blind.

He means to be attentive
  To *Her*, and *Her* alone;
But the *Other Girl* is pretty—
  A fact he has to own.

She wields and waves a pretty fan
  Of feathers, gauze, and lace,
Which, as the foot-lights flare and blaze,
  She holds before her face.

She cannot see him; that *He* knows;
  And so, with manner bland,
He turns and presses, just by chance,
  The *Other* maiden's hand.

A closing fan, a little shrug,
  Indifference sublime,
Tell him too late that *She* had been
  Watching him all the time.

He did not know that modern fans
  Have peep-holes filled with lace,
Through which the gentle owner looks
  With the fan before her face.

Moral.

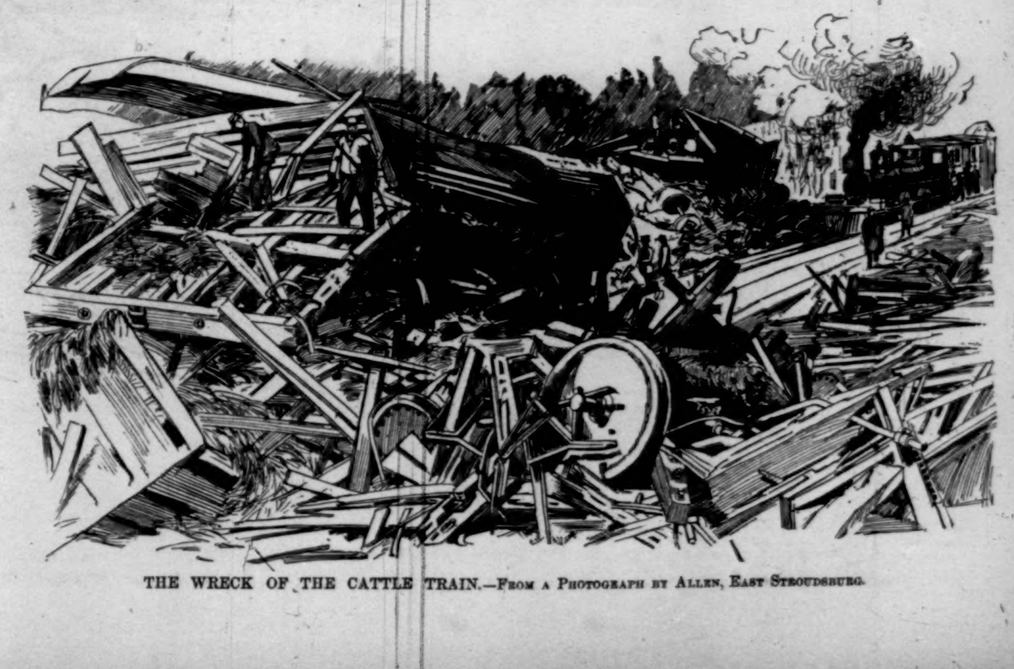
O youths who wish to carry on
  Flirtations, make your plans
With due regard to maidens who
  Carry detective fans.

SLAUGHTER BY RAILWAY.

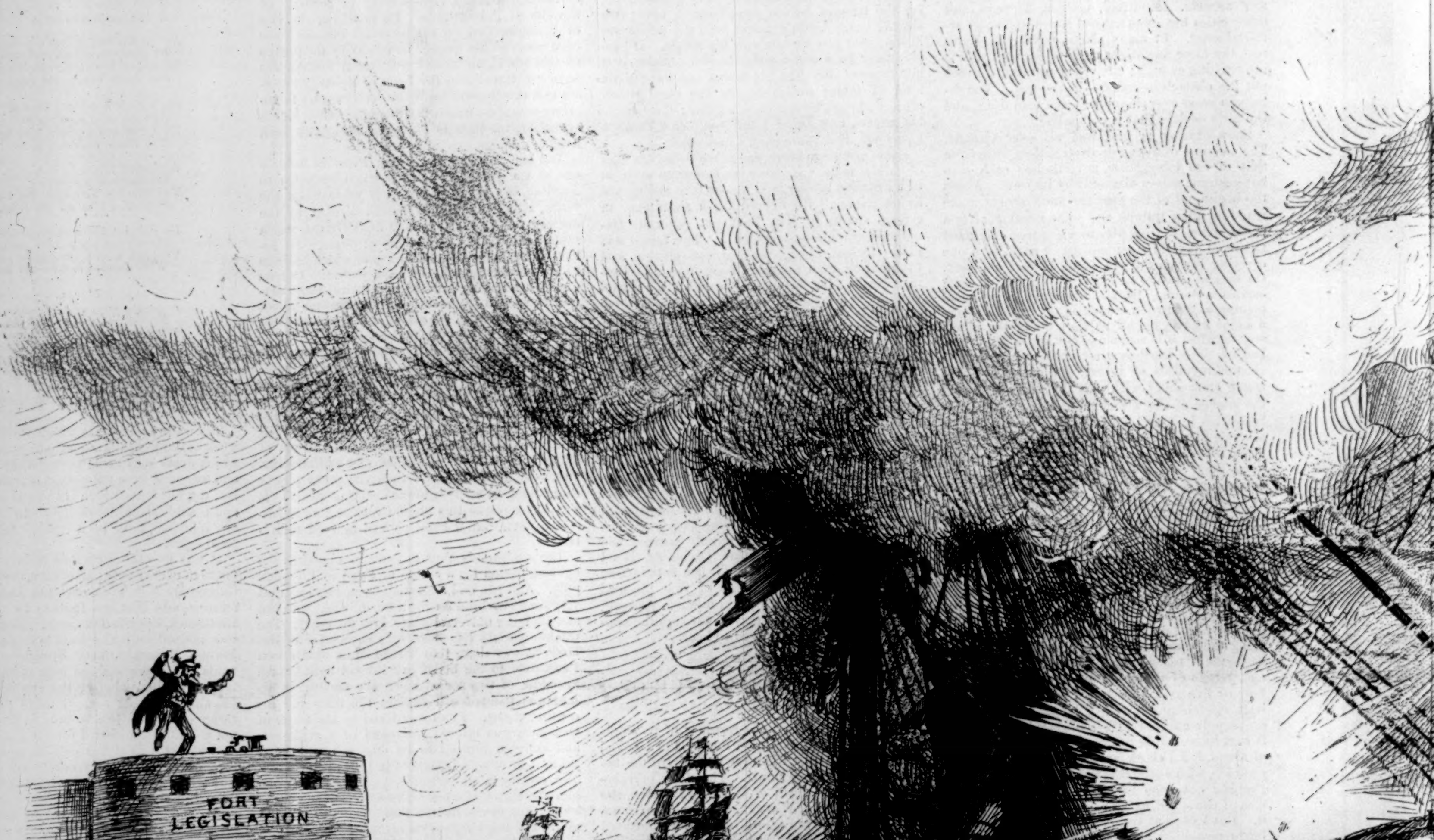
The railway accident which we illustrate this week exemplifies another unexpected way in which death may come to travellers. The killed and wounded were not women and men, it is true. But the incidents which led to the instantaneous and terrible slaughter of 400 cattle would, beyond any question, have been equally fatal to human passengers.

It was no ordinary cattle train. It was composed of over twenty palace cars, despatched from Chicago to New York over the Delaware, Lackawanna, and Western Railway by the American Live-Stock Express Company. Nothing unusual was noticed until the train was descending the Pocono Mountain, near Stroudsburg, Pennsylvania. The grade there falls ninety feet to the mile, and almost before the engineer realized it he was travelling seventy miles per hour. He threw on the air-brakes only to find they would not work. He whistled for the hand-brakes, but such of them as it was possible to apply did not hold on the slippery tracks. He then quickly threw over the reversing lever, but as the steam thrust the drivers backward, the tremendous forward impetus broke the gearing without checking the awful speed. A lurch around a curve snapped the ponderous coupling between the engine and the train like a wire. Then the engineer gave his engine full steam, and dashed away.

If nothing had broken, the train would probably have exhausted its momentum at the bottom of the grade. But as it leaped madly along, more swiftly at every yard, an axle broke. It was as though a mischievous boy had placed a fence rail across the path of a toboggan half-way down the slide. The leading cars stood on end for an instant, but the rear cars pressed on, and crushed all before them. Only two cars remained on the track, and several were dashed down an eighty-foot gulch into Broad Brook. Scarcely anything was left but match-wood and beef. The train hands escaped death by jumping, but out of the train load of cattle not one in twenty survived, even with shocking wounds. What the poor beasts could have thought their journey to the shambles meant, or what impress on their dull brains was made by the frightful shock and fall, is a study of pitiful interest. And it is only the accident of an accident that the tale is told of them instead of human sufferers.



THE WRECK OF THE CATTLE TRAIN.—From a Photograph by Allen, East Stroudsburg.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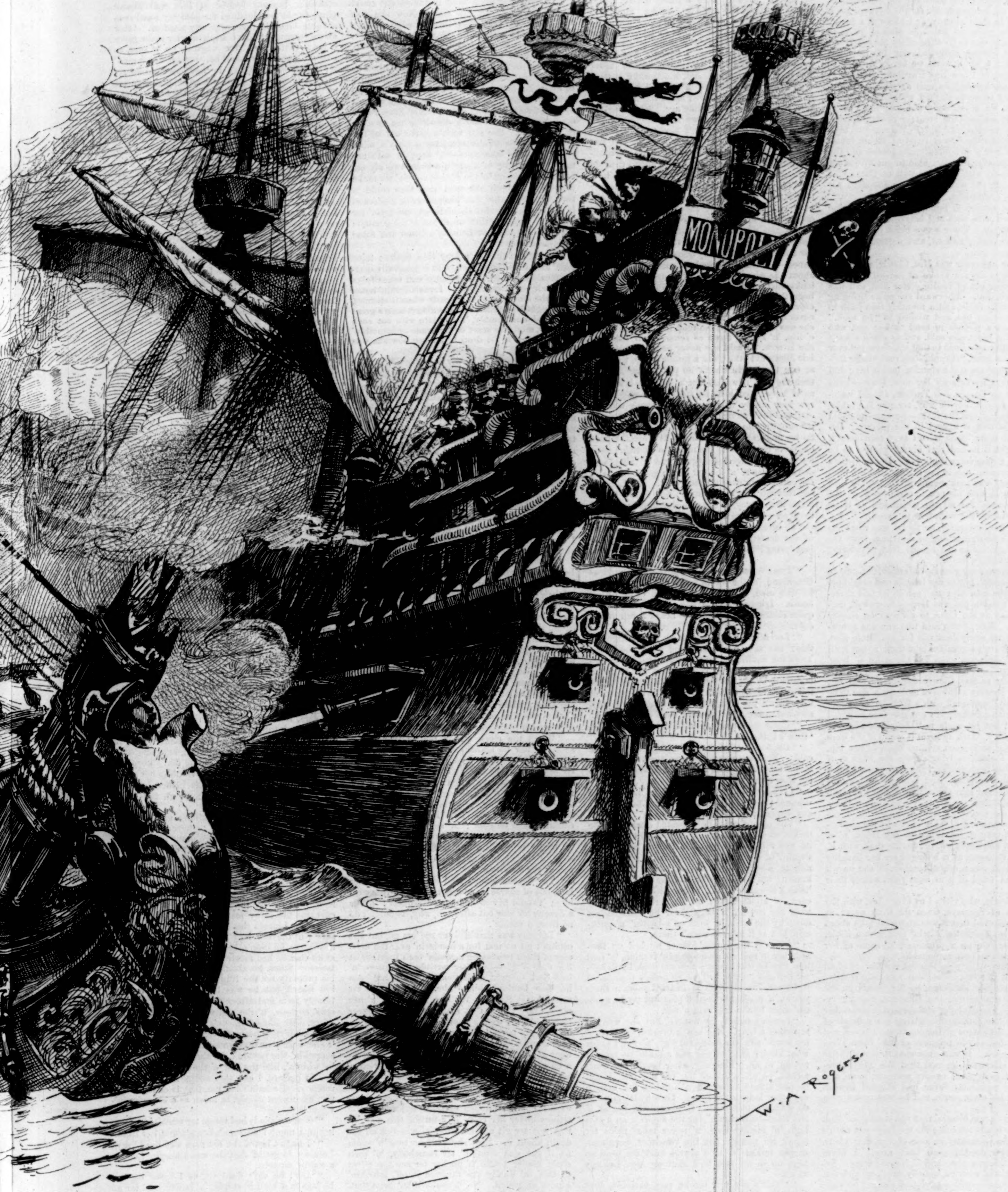

MONOPOLY
W. A. Rogers.

N BUCCANEERS.

AN AFFAIR AT SUNDAY COVE.

WHEN Jack and I were first married we were a very impecunious young couple, and worked hard over our painting and teaching to keep the wolf from the door. Toward the end of the first year Jack was seized with a fever, and when, after two long, painful months, he was able to be about again, he resembled a ghost more than real flesh and blood, and the doctor said if he did not go immediately to the sea-shore for the summer, he would not be answerable for the consequences. We were in debt already, and had not a penny left in our purse, so how this plan of going to the sea-shore was to be effected we did not know. But after having cudgelled our brains night and day for a whole week, we finally decided to procure one of those tiny travelling saloons in which house-keeping as well as making photographs may be accomplished, which, with the aid of friends, we accordingly did, and both being skilful and enthusiastic amateur photographers, the plan succeeded admirably. We spent an idyllic summer on the breezy coast of Maine, found no end of lovely and picturesque places and the quaintest people, and were able to put by quite a sum of money with which to wait on Dame Fortune through the winter, while we prepared for our spring exhibitions.

We first settled at Sunday Cove, a charming nook cooled with pine and beechen boughs and plashing waves. There was a brisk little village on the hill just above us, and customers came from far and near.

Our first customer was Mrs. Clewly, a very fat old lady, who always spoke of herself as being slim, meaning out of health. Her first call was a social occasion. Afterward she came bringing a huge family Bible, and a monthly rose bush in a green wooden pot, and wished to "be took." She wanted a picture to send to her son, who lived at the West, she said, and as she'd always had a monthly rose bush in that self-same pot ever since he was born, "'twould look real kinder nateral ter him to see one a-standin' beside her; and as he hadn't never seen her new Bible—'twas given her by Cousin Job Trafton, an old bachelder from over Belville way, ter pay fur takin' care of him through the fever—perhaps he could tell a little how it looked in the picture. Describin' of it by letter warn't very satisfactory. She thought it looked real kinder genteel to be took with a handsome Bible, too. Her minister's wife sat a-readin' one in her picture, and the minister himself was took a-standin' by a table with a Bible on it, with his two fingers restin' on the pages, a-lookin' fur all the world jest as if he was founderin' the Scripters in meetin'." Expounding the Scriptures, we found, was what she meant, but after listening to a sermon from the reverend gentleman we agreed that foundering was as suitable a word.

The picture gave great satisfaction, not only to the lady herself, but to her friends and neighbors also, and the monthly rose bush in its odd three-cornered wooden pot was largely borrowed, during our stay at the Cove, to do duty on similar occasions. Mrs. Clewly said that she was annoyed by a great many demands for her Bible also, but she "warn't a-goin' ter lend thet, 'n' hev it all sp'iled 'n' disfaced, even for the sake o' bein' neighborly." One neighbor, an old lady as lean and angular as Mrs. Clewly was broad and fat, failing to procure a Bible of as large a size to be "took with," appeared with a Webster's Dictionary, and with a pathetically anxious face inquired if it could not be made in "the picter adzactly like a Bible." Jack thought it might if she were to hold the ponderous volume open in her lap, with her spectacles lying across the page as if she had just been reading, and had paused for a moment to meditate. And though her features could be coaxed into neither an edified nor meditative expression, the old lady was quite delighted with the picture, and remarked, with a triumphant air, that she "didn't see why the dictionary didn't take as harnsome as *eny* Bible, 'n' ef eny o' the neighbors wanted ter be took with it, they was welcome, as it b'longed ter her daughty Eveline, that was a school-teacher, 'n' she warn't ser dretful 'fraid of it as *some folks* was of their Bible."

Mrs. Clewly, who visited us every day, with the exception of Sundays, when we were never at home, whispered that it was an awful joke about "Mis' Cyrus Toothaker's bein' took with a Bible, as she warn't even a professer, 'n' some of her folks warn't no better'n enfidels."

From Mrs. Clewly we learned the history of all the people in town, collectively and individually; all the notable happenings—the weddings, the funerals, the births, the illnesses, the merry-makings. The illnesses she seemed to remember with peculiar satisfaction, giving every detail of the different stages of Deacon Grant's fever, and the slow but subtle progress of Mis' Eben Freeman's dropsy. It was somewhat to our surprise that we afterward learned that Mis' Eben Freeman had been dead twenty years or more, and that this particular fever had afflicted Deacon Grant in his early youth, and he ~~was~~ now a man of sixty.

"It was a real blessin' that you should ha' took inter yer heads ter come ter the Cove jest at this time," she remarked on one of her first visits. "Serciety's dretful pore here now. I never knowed things ter be ser dull, 'pears ter me. Nobody a-gittin' merried, nobody dyin', no sickness ter speak of"—with a profound sigh—"no signs of an awakenin'. There never 'pears ter be no awakenin' without a visitation er Providence ter begin it. Nothin' hain't happened sence Lorseny Stiles hed her affair a year ago last spring."

"What was that?" I inquired, never dreaming to what a long entertainment I had invited myself.

"Well, it's a pritty long story, but I catilate I ken stop long enough ter tell ye about it, seein's I've got my knittin'-work with me. It's jest the way it happened, fur my daughter got it frum Lorseny's niece—they've alwers been real thick sence they was little. You see that awful pore-lookin' little black house on the clift t'other side o' the Cove, don't ye? 'Tain't got but jest four teenty-tonty winders in it, an' looks kinder blind ez well's delaperdated. There's where Lorseny Stiles lived till she come inter her property last year; 'n' she was tollable pert too, though she lived all sole alone, 'n' was pore's a crow at t'other end o' winter. She worked dretful hard, too, at whatever she could find ter do. She worked rugs fur folks, made vests 'n' pants when she could git 'em ter make, helped at house-work in hayin'-time, did quiltin' 'n' mendin' 'n' nussin'—anything ter keep along. Lorseny was painstakin' 'n' industrious, but never was 'n' never will be a real up-'n'-dressed, wide-awake sort of a girl, that ken go ahead 'n' do well fer herself, like Miry True, that growed up in the next house ter her, 'n' is about the same age. Miry's makin' money hand over fist down ter Stoneport depot a-dress-makin'. She hain't never got merried, neither, but she's hed chances enough, you ken be sure. Lorseny never seemed ter hev no confidence in herself; she thought she warn't capable o' doin' nothin' in particular; 'n' so she warn't. I used ter think 'twas her humbleness thet give her thet kinder meechin' way. She alwers wuz dretful humbly, with one cross-eye 'n' one straight one, a nose as sharp as the tooth of a saw, a forrad jest like ole Bald Face up there fur all the world—'n' thet, though it may be harnsome fur a mounting, ain't very becomin' ter a counternance—a little puckered-up mouth, 'n' a chin about the size 'n' shape of a dress button: it looks real kinder comercal compared with the breadth of the upper part of her face: 'n' ter crown all, her hair is redder'n fire. Lorseny never hed no beaux nor nothin'; 'n' so, even when she was a young girl, she took real serious views o' life, 'n' settled down as senserble 'n' sober as she is now. I said she never hed no beaux, but Isic Jones did take quite a notion ter go with her at one time. He warn't no prittier ter look at then she was, 'n' was so lazy 'n' shif'less it seemed as if he wanted help ter draw his breath. He saw how stiddy 'n' industrious Lorseny was, 'n' catilated she'd be tickled ter death ter git a chance ter support him fur the sake o' havin' a husban'. So he mortgaged his mother's two dretful pore ole cows ter promote the means o' courtin', went ter see her, 'n' kerried peppermints 'n' things one or two evenin's, 'n' invited her to go with him to the cattle show over ter Stoneport. But Lorseny see through him in a minute; she warn't ter be taken in thet way, so she give thet queer mouth o' hern an extry pucker, 'n' sent him a-kitin' without no ceremony, 'n' she hain't never had a beau of any description from that day till a year ago last spring; then she 'peared ter be growin' quite a belle.

"'Twas a real blusterin' March night, cold as Greenland, 'n' the waves round the clift a-bellerin' like mad, when Squire Trafton come to her house. Lorseny had a late supper, 'n' warn't quite cleared away, when she heard a rap at the door.

"'Lor sakes, who ken thet be, sich a night as this?' she says ter herself, and when she found 'twas the squire, the first thought that came into her head was thet he come to ask her to go 'n' take care of his little grandson, that she'd heard tell was threatened with a fever. It was the first time in all his born days thet he'd ever condescended to come ter her door, even of an errand.

"'Come in out er the wind, squire,' says she. 'How's little Jim?'

"'Oh, lor, he hain't got nothin' but a little cold. The wimmen-folks was scart ter pieces, thet's all. They hain't all as senserble as you be, Miss Stiles.'

"Lorseny kinder wondered how he knowed whether she was sensible or not, not bein' hardly any acquainted; but she said nothin'.

"The squire come in 'n' seated himself in the rockin'-chair by the fire, 'n' Lorseny noticed that he was all dressed up as ef he was goin' ter a weddin' or ter meetin'. She put by her work a minute, a-waitin' fur him ter make his errant known; but he said nothin' ter the p'int, only thet 'twas a stormy evenin', 'n' her little room looked cozy, 'n' all thet, jest ter be perlite. Lorseny took her sewin', 'n' beggin' ter be excused, sot down by the lamp, 'n' went on a-bastin' 'n' puckerin' jest as if nobody warn't there.

"Bime-by the squire kinder hitched up towards her in real company-keepin' fashion, 'n' said how that he was kinder lonesome sence his daughter hed got merried (queer he hedn't thought of it before, fur she'd been merried more'n three years), 'n' it seemed dretful pleasant ter be a-settin' there by the fire 'long o' her.

"Lorseny didn't say nothin', but she was all struck of a heap. She kep' a-breakin' 'n' wastin' her sewin'-silk in a shameful way, 'n' didn't know what kinder stitches she was a-takin' no more'n nothin' at all. Finerally, after beatin' the bush awhile, he up 'n' asked her ter hev him, sayin' he hed alwers esteemed 'n' admired her more'n eny other lady in the place. Lorseny fairly gasped with astonishment. It 'peared ter her as if she must be dreamin', fur the squire's an awful high 'n' mighty man, 'n' never takes pains ter speak ter nobody but the two-story, boughten-carpet folks; 'n' he'd alwers held his head so high up in air thet he'd skurcely seen Lorseny at all.

"''Tain't my way ter be very sociable, Miss Stiles,' he said, seein' she was so dumfoundered she couldn't speak nor nothin', 'but I assure ye I've alwers set great store by ye.'

'No, I catilate not,' she managed to say, after a spell; 'n' though he pressed her awful hard to say yes then 'n' there, 'twarn't no use. She said she must have a week to consider the matter in, fur, thinks she, there's somethin' more'n I know of at the bottom of all this. She never was no fool, Lorseny warn't.

"They hed jest fixed it when he should come fur his arnswer, when there come another rap to the door, 'n' who should 'pear but Deacon Jones, frum over ter Breezy P'int; 'n' it was the funniest thing you ever come acrost, I s'pose, ter see how them two men glared at one t'other when the deacon come inter the room.

"Lorseny see at a glance thet he was all dressed up too; 'n' he squeezed her hand at the door so she come near singin' out, hevin' a lame finger.

"Lorseny hed gone 'bout as far as she could a-bein' supprised by this time. Now she was sure there was somethin' in the wind, though what on earth it could be was a dretful mystery. She shet her mouth real tight, 'n', thinks she, now I must be awful descreet whuther or no, 'n' not let on thet I feel no more flustrated then as if I was 'customed to hevin' two beaux ter once in every howlin' storm; 'n' I know Lorseny well ernough to be surtain thet she was jest as cool as if her company was only ole Mis' Eben Saunders come in ter borrer a drawin' o' tea er a bit er merlasses. She jest took a clove out of her pocket—it *does* kinder compose a body's mind ter be nibblin' somethin'—'n' went on with her work as before; 'n' there sot them two sly ole fellers, the deacon 'n' the squire, a-tryin' ter make conversation, both ser mad thet they could 'a throttled one t'other, but 'bleeged ter be moderately civil; both dretful shamefaced, but tryin' ter 'pear as if 'twas nothin' much out er the common fur them ter meet at Lorseny's under the same circumstances.

"'Rough night fur a long ride, squire; tejus goin' too,' says the deacon, who is generally dretful mealy-mouthed. 'A pressin' call takes folks out in all weathers, though. I was a-comin' home frum the store (we shet up early when it storms), 'n' thought Miss Stiles, thet has alwers been a great friend of our fambly, 'n' my late wife sot such store by, might be scart or lonesome or somethin' in the storm, 'n' I'd drop in ter see how she was a-gettin' along.'

"Lorseny couldn't hardly help a-smilin'. She alwers *hed* been on good terms with the deacon's fambly. They *was* neighborly, 'n' when she went ter the deacon's store fur anything, he gen'rally said, 'How de do, Lorseny? how air ye a-gittin' along?' 'N' when his wife was a-livin', 'n' she used ter be over there ter tea or ter dinner sometimes, he inquired fur the state of her mind—a-feelin' it ter be his dooty, I s'pose, as a deacon of the church. This was all the intrist he'd ever manerfested in her, though she'd been alone 'n' unpertected hundreds o' desprit stormy nights, 'n' he'd been a widderer four year.

"'Very kind of you, I'm shore,' the squire says, a-smilin' awful sarcastic. 'Miss Stiles is fortunit in hevin' ser thoughtful a neighbor, bein' alone. I don't s'pose it's ever been adzactly like livin' alone, your house is ser nigh.'

"'N' so they kep a-heavin' it at one t'other till Lorseny thought she'd hev ter give 'em the floor 'n' let 'em fight it out. Then they'd both direct all their conversation ter Lorseny, 'n' pertend they didn't know nothin' about one t'other's bein' in the room no more'n nothin'. 'N' there she sot 'n' sewed till it got ter be nine er-clock, 'n' that bein' her bedtime commonly, she was ser sleepy she couldn't hardly keep her eyes open. Then she put her work by, a-sayin' thet the oil in her lamp was a-gittin' pritty low, which was a strong ernough hint fur them two old sillies to take their leave. But they hed no notion o' takin' no hint, 'n' she see after a while thet each was bound ter outstay t'other, whuther or no. So all she could do was ter keep her patience, 'n' go 'n' light another lamp.

"When the clock struck ten, as they didn't seem ter hev no realizin' sense of how improper they was behavin', she hed jest made up her mind ter ask 'em if they wouldn't be kind ernough ter fersake her premises, when the squire (he's got twice the sense o' the deacon, 'n' not half his obstinercy) popped up, 'n' givin' the astonishin' information thet it was gittin' kinder late, said he catilated he'd be goin'; 'n' says he ter the deacon, as perlite as a new clothes-basket, 'My hoss 'n' buggy is a-waitin' under Miss Stiles's woodshed, 'n' 'twon't be a mite out o' my way ter drop you at yer own door.'

"The deacon looked mad ernough ter swaller him, but of course he couldn't refuse to ride with him; 'twould hev looked so awful queer; 'n' fur a deacon ter stay out after ten, why, 'twouldn't do no more'n nothin'.

"Lorseny was thankful ter see 'em go, but she couldn't git no rest for a-ponderin' over the mystery of them two beaux a-comin' both together at her time o' life—both ser terrible in earnest, 'n' both jest thought of it too. Could it ha' been her new bunnit? thinks she. She wore it ter meetin' last Sabbath fur the fust time, 'n' her niece, Clary Chick, thet made it, said she never looked half ser well in anything in her born days; 'n' Lorseny herself hed been pritty well satisfied with it when she saw herself with it on, too. She went an' got it out er the bandbox now, 'n' tried it on afore the glass. My girl Almiry was a-comin' home from Hitty Turner's, that was dretful sick at that time, with her beau, 'n' they see her through the winder a-standin' there (Lorseny alwers keeps her kitchen curtains up) a-fixin' the strings under her chin, 'n' a-turnin' this way 'n' thet way ter git a good view, 'n' was tickled ter death about it. Now she'd kinder nod 'n' smile as if she was a-talkin' ter somebody, 'n' then she'd kinder bridle 'n' pucker ter see the effect of thet, 'n' finally she throwed it off, a-lookin' kinder disgusted. No, it couldn't ha' been thet. Lorseny's head won't never git turned ser fur but what she ken see pritty middlin' straight. She was jest as humbly in thet bunnit as she was in her old one. 'Twas the bunnit itself thet looked well; thet was all. She didn't git up till quite late the next mornin', hevin' passed a sleepless night, 'n' hedn't more'n got through breakfast when, lo 'n' berhold, another man made his appearance, a-drivin' up to the door in fine style.

"Lorseny looked out 'n' see 'twas Loomis Fish, an old bachelder thet lives over in the Snow deestrict. His sister, Mis' Hodges, is one of Lorseny's oldest friends, an' bein' he's as much as ten years younger'n she is, Lorseny took heart 'n' thought he might not be another beau, after all, though 'twarn't his habit to come a-nigh her. He was smiliner'n a May mornin', 'n' she see with dretful misgivin's thet he was all scented up with a hair-oil. A man er his age, nigh about thirty-eight, never scents up much onless it's a case o' courtin'. Lorseny looked at him real kinder glum, fur he was inclined ter hold her hand consid'able longer'n there was any need of. 'Hev all these men got up a conspireacy ter make game o' me?' thinks she. But when he up 'n' said, as easy 'n' nateral as could be, thet he was a-goin' ter drive over ter Cad's in 'bout an hour or so, after he'd been 'n' got his hoss's shoe seen ter at the blacksmith's, 'n' wanted ter know if she didn't want ter go with him, she thought mebbe she'd been a-jumpin' at conclusions, 'n' said she'd go, thankin' him kindly. 'Twas a real pleasant day after the storm, an' her mind was ser kinder destracted she couldn't 'tend ter her work ter save her life.

"Loomis he was dretful p'lite, tucked her up proper careful with the kerridge robe frum the chilly winds, though there warn't skurce a breath a-stirrin', 'n' kep' a hopin' she was comfortable. Lorseny bore it awful calm, though I'm shore thet nose o' hern, thet hed alwers bore the brunt of everything without much concern on the part of her friends heretofore, was a leetle up in the air. Friendship's an awful creaky back to lean ag'inst when a person is pore, 'n' Lorseny'd found it so ever sence she was left a orphan with four younger brothers 'n' sisters to look after, 'n' she only fourteen.

"Lorseny's got an old aunt thet lives a leetle piece along the road ter Pine Hill, where Mis' Hodges lives, 'n' when they come ter her house, bein' as her aunt hadn't been very well lately, she asked Loomis if he hed any ubjections to her gittin' out o' the buggy 'n' runnin' in a minute ter see how she was.

"The old lady met her at the door with an awful solemn 'n' queer expression o' countenance.

"'Lorseny, do you feel dretful humble?' says she.

"'Why, no, aunt; no humbler than usual. Why should I?'

"'Why should ye? Oh, Lorseny, I'm afeard ye're desprite stiff-necked 'n' ongrateful. Favor is desateful, 'n' riches vain,' says the old lady.

"'I don' know what yo're a-drivin' at, Aunt Careline,' says Lorseny. 'What's riches 'n' favor ter me, I sh'd like ter know? I never hed none o' neither, nor never expect ter.'

"'Why, Lorseny Stiles, ken it be possible thet ye don't know the proverdence that hez fell ter you, 'n' slighted yer relertives thet is jest as deservin' as you be?'

"'No, I don't know nothin' about eny proverdence,' says she; 'but I knowed there was somethin' in the wind. What upon earth is it, Aunt Careline?'

"'Didn't you know that ole Nathan Spauldin', yer father's seccont cousin, hed made another will, 'n' left you, bersides the old home farm he used ter live on jest above you there on the ridge, fifteen thousan' dollars—fifteen thousan' dollars, 'n' thet splendid farm, the only one thet's good fur nuthin in the place—fifteen thousan' dollars!' 'N' she kep' a-repeatin' of it till Lorseny was 'bout crazy. She jest put her two hands up ter her ears, 'n' come nigh fallin' right over inter her aunt's wash-tub that was a-standin' behind her. The ole lady alwers hes her wash-tub beside of her. She washes fur her health, says she can't git no feelin' in her head if she don't keep her hands in hot water. Her mind troubles her some, 'n' one time the church kinder hauled her over the coals fur washin' on the Sabbath days, pore old soul!

"''T can't be true,' she kinder gasped, when she righted herself again. 'I never sot eyes on the ole man but once or twice in my life. When he lived at the farm we lived 'way over ter t'other cove. I thought he was kinder sot agin the whole fambly. He 'n' father never visited back 'n' forth.'

"'But thet don't seem to mek no diffrunce now,' says the ole lady. 'He alwers was a real onreason'ble sarcy man, Nathan Spauldin' was, 'n' La'yer Lincoln thet made out the will says he said' ('n' the old lady imitated his voice awful droll), 'as he didn't hev no nigh kin, 'n' no kin at all thet he hed much respec' fur, without 'twas Lorseny Stiles, he should leave a good part of his property ter the Bible Serciety 'n' the 'Merikin Board, but he was boun' ter leave the ole fambly farm and fifteen thousan' dollars ter Lorseny enyhow, 'n' the will was made out ter thet effect. He liked Lorseny's industrious ways, 'n' her mekin' the best of everything, her knowin' 't she warn't terrible smart, 'n' not tryin' ter do somethin' she couldn't, 'n' then a-breakin' down 'n' whinin', like the rest o' the Spauldin' posterity. I declare, I call thet addin' imperdence ter robbery. He hain't lef' me, that is es nigh relation as seccont cousin, as much as a ole spinnin'-wheel.'

"'N' the ole lady hed ter go ter washin' furious, hevin' a numb spot somewheres about her head.

"'I hadn't heard the old man was dead,' says Lorseny, forgettin' that she was a-keepin' Loomis a-waitin' outside.

"'Lor! he ain't dead yit, as I know on, but he lays in a kind o' stupid, 'n' is expected ter go eny minute,' says the ole lady. 'N' then she begun ter exhort Lorseny ter be humble agin, 'n' not ter forgit them she was beholden ter when she got the money 'twas more theirs 'n hern.

"Lorseny said she didn't catilate she was beholden ter enybody, surtainly not ter any of her relations, 'n' hurried out o' the house 'n' inter the buggy agin as fast as she could. She felt kinder bewildered like, 'n' didn't pay no 'tention ter Loomis when he kep' a-hemmin' 'n' hawin', 'n' a-tryin' ter git his arm round her, 'n' look terrible sweet inter her face. Finerly, jest afore they got ter his sister's, he up 'n' says, 'Lorseny, I'm a-thinkin' o' gittin' merried.'

"'Be ye?' says Lorseny, jest as pert as a lizard. 'Then ye'd better make up ter the Bible Serciety or the Amerikin Board. They'll hev a good deal more money 'n I shell.'

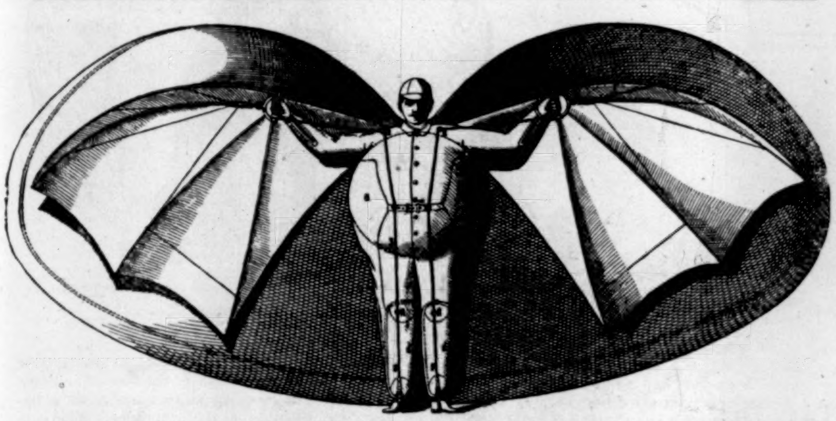
"He colored ter the roots of his hair, but warn't a-goin' ter be put off in thet way. 'I'd a good deal ruther hev you, Lorseny, than all the money in the world,' says the lyin' raskil. 'I've been a-thinkin' about ye fur years;' 'n' he was goin' on glib enough, but Lorseny wouldn't hear another word of thet sort.

"'Stuff 'n' nonsense!' says she. 'I hope you hain't been broke o' yer rest a-thinkin' of me; 'n' if you're a-goin' ter hev another spell o' thinkin' of me, you'll be kind ernough ter keep it ter yerself, as yer hev long back.' He was awful mad, but of course he couldn't do nothin' 'bout it, 'n' don't you b'lieve he's sassy 'n' conceited ernough ter keep a-hangin' round her yit, though she don't treat him no better than she did that day!

"When she got home that night there sot the deacon on the steps a-waitin' fur her, lookin' real kinder wrought up 'n' anxious, bein' boun' ter git ahead of the squire if he died fur it. Lorseny was clearn out er patience now, ser much so thet she couldn't see no fun in it, 'n' she let him know plain enough thet his room was better'n his company. But, lor! you could move the meetin'-house twice ter movin' him once if it sot out ter do anything, 'n' so he staid 'n' staid 'n' staid, 'n' edged round, 'n' tried ter sweeten Lorseny up, 'n' make her think the moon was made o' green cheese, 'n' talked ag'inst the squire 'n' Loomis (he smelt a mice there too), till he up 'n' asked her ter hev him in so many words. Lorseny told him she'd sooner take pisen then hev eny man she ever see yit; 'n' then he told her ter beware o' bein' stiff-necked, 'n' thet riches brought folks ter perdition, but went home real kinder meechin' fur him. The squire got his walkin' ticket too when he come round the next week ter hear his fate.

"The old man died in a few days, 'n' when Lorseny come inter the property she moved onto the farm, 'n' took her niece 'n' nephew ter live with her. Lorseny thought 'twas kinder queer thet the neighbors should 'a heard about the will two or three days afore she did, 'n' thet they hedn't run 'n' told her; but Mis' Jones, Lawyer Lincoln's sister, brought the news over ter the deacon at his store, in the first place, 'n' when she told him he said: ''Sh! 'sh! don't let Lorseny know it. 'Sh! 'sh! don't let nobody know it yit.' 'N' she, bein' kinder simple, said the same thing ter everybody she told afterwards—''Sh! 'sh! don't let Lorseny know it.' But lor! ef she hedn't been away thet day over ter Mis' Hodge's, I'd 'a gone 'n' told her myself. So would a dozen other folks thet I know of.

"I declare, Lorseny's awful beset with offers ter this day. There's an ole man, pritty well off, a-tryin' ter court her now—Uncle Silas Clark, frum up on Great Hill. He's had wife after wife, but they've all died off, one after another, 'n' he's been hevin' a single spell fur some time now. But, gracious goodness! she'd no more hev him 'n she would the deacon or the squire. Lorseny enjoys life as she is. She's senserble ernough ter know thet a husban's a kinder doubtful proverdence. She's jest been ter Boston on a visit, 'n' brought home a lot er new clothes, 'n' things fur her parlor, 'n' she's ser chippered up she's beginnin' ter look better favored. You'll see her anyhow in a day or two. She alwers goes where there's anything going on." Susan Hartley.

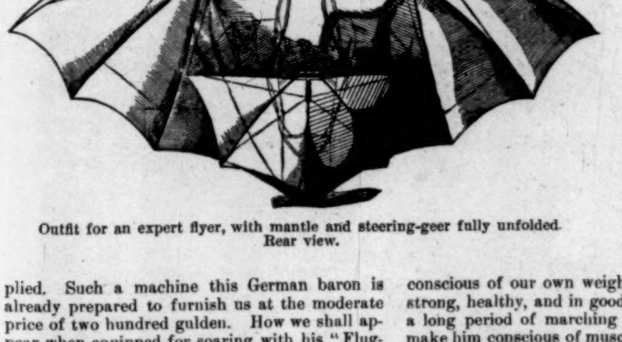


Ordinary flying outfit. Mantle and parachute-balloon unfolded, with air-cushions for protection of upper and lower parts of body. Front view.

A GERMAN FLYING MACHINE.

Is flying to become as common a mode of locomotion as bicycling? This question Ernst Freiherr von Wechmar answers substantially in the affirmative in an article on "Dynamic or Aviatic Flight," which appears in a German military magazine, the *Organ der Militärwissenschaftlichen Vereine*, published in Vienna. Von Wechmar is satisfied that he has developed a means of locomotion which will enable him to carry through the air the weight of his own body at least. Whether it is equal to the added ponderosity of the name of the magazine in which his communication is found, and that of the machine itself, the "Neuverbesserte Wechmarsche Flugapparat," does not appear. The description of this apparatus is accompanied by an exhaustive treatise on the art of flying, the general conclusion of which is that as air is an element far more natural to us than water, it offers greater possibilities of locomotion when we have once learned to adapt ourselves to its conditions. A bird is simply an animal plus the wings with which art must provide us, and with wings our organism is as well adapted to flight as to walking or swimming. The difficulties we shall have to overcome, Von Wechmar avers, are far less than those we encounter in swimming.

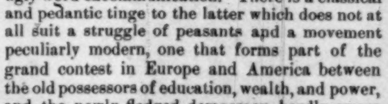
Aviatic flight (from the Latin *avis*) is possible, then, when we have obtained a machine in which the principles of bird flight are successfully applied. Such a machine this German baron is already prepared to furnish us at the moderate price of two hundred gulden. How we shall appear when equipped for soaring with his "Flugapparat" is shown by the front and rear views of it given here. More than twenty years ago Mr. Wenham, in a paper read before the Aeronautical Society of England, estimated that a man would require wings sixty feet from end to end and four feet broad to lift him from the earth. Those illustrated here are of about one-half this size, and it is the intention to lessen the weight of the body by surrounding it with the air-cushions shown in the illustrations. The inventor will need cushions for other purposes if his experience is at all like that of Mr. Wenham. This gentleman constructed wings of thin holland, stretched in a frame, and having a superficial area of eighteen inches by ninety feet. These he arranged in parallel sections one above the other. Thus equipped, he resembled one of Ezekiel's angels, of which "every one had four wings," and "the hands of a man under their wings." By placing himself in front of a twenty-knot breeze, Mr. Wenham managed, like the angels, "to go straight forward"; but here the resemblance ended; he could not go "whither the spirit was to go," but came down by the run, with great damage to his apparatus, if not to himself. He was satisfied, however, that he was at work in the right direction, and embarked upon experiments with "superposed aeroplanes." As no practical result has followed, after nearly a quarter of a century, we are disposed to be sceptical in regard to this German attempt in the same line.



Outfit for an expert flyer, with mantle and steering-geer fully unfolded. Rear view.

Von Wechmar regards as a popular superstition the idea that our physical organism makes flight impossible to us even were we supplied with wings. The first step in our progress toward aerial locomotion is to stop ridiculing the aeronauts, and cease to regard the question of individual flight as settled in the negative. Considered with reference to the relation between locomotive power and weight, man has the advantage of the bird, in spite of the fact that he appears to be more heavily and clumsily built. The relation of our motive power to our entire organism is so admirably adjusted that in walking, swimming, or other movement we are scarcely conscious of our own weight. Where a man is strong, healthy, and in good training, it requires a long period of marching or other exertion to make him conscious of muscular exhaustion. In the marches of Weston, sixty miles a day for months together, or in one of the "go-as-you-please" matches in Madison Square Garden, there is no doubt a vastly greater expenditure of muscular strength than in the most prolonged flight of the strongest bird. Man is able to distance any animal in traversing the land; why should he not, then, by analogy, be able to distance the bird in its flight under equivalent conditions? If our specific gravity can be so readily controlled in walking, why should it present insurmountable difficulties to flight? This, at least, is the argument of Von Wechmar.

The ideal flying apparatus must utilize the propelling power of the legs equally with that of the arms, as is the case in swimming. Weight, motive power, and strength are the equivalents for locomotion of every kind, organic or mechanical. As man has these in well-balanced proportion, it follows logically that flight is both possible and feasible for him. If he can swim, then he can fly, is the argument; with proper apparatus, and the motions for flying can be learned and practised with the same ease as those for swimming. Von Wechmar claims to have developed new ideas in utilizing the power of the leg as well as that of the arm, and in applying the weight of the body, as the bird does, as a help instead of a hinderance to flight. These are fully presented in his article. If man plus the "Flugapparat" does not strike us as an attractive object, we must remember that use is beauty. If, also, "to labor is to pray," we should doubtless return from a trial of a "two-hundred-gulden" machine in a high state of spiritual exaltation.



Expert flyer with ordinary flying outfit of mantle, balloon, and air-cushions. Front view.

THE BUCCANEER ON DECK AGAIN.

See double-page Cartoon.

From the dead rises Morgan. The pirate is here,
With black flag at gaff-peak, the bold buccaneer.
Dark Pools and grim Trusts on the deck of his craft,
Their fingers are clutching hilt, pikestaff, and haft.
Are you blind? are you deaf? are you dull as a clam?
Or merely in dotage, my poor Uncle Sam?

Now he rubs his old eyes. There's a fight off our shores;
The corsair his broadside incessantly pours;
And the old ship we loved, that our forefathers gave,
Of the fleet Competition, is sunk in the wave.
And you threaten to fire? Ah! that gun is a sham,
An old rusty swivel at best, Uncle Sam.

See the tall, ugly craft! With your light paper shot
Will you crush its strong bulwarks? I rather think not.
The gestures you make on that old rampart grim
Might frighten the crows, but they cannot scare him.
Go fit out an iron-clad, well armed with a ram,
If you'd deal with the freebooter, dear Uncle Sam.

These pirates have come poor and needy to spoil,
Their clutch on our clothing, food, fuel, and oil.
Now Fort Legislation is worn out and weak,
From Fort Execution the cannon should speak.
No more paper pellets, for certain I am
You need something heavier, good Uncle Sam.

HERE AND THERE IN GALWAY.

Boycott was the name of a landlord who now dwells at peace with the country-side. He may live in the English tongue for several generations, merely because his conflict with the peasants and tradespeople in the west of Ireland enriched our language with a word suited to the needs of the period. Of course the boycott has always existed, but hitherto it has not risen sufficiently into notice among the laity to need a term; in the Church, however, the same thing bears the ugly word excommunication. There is a classical and pedantic tinge to the latter which does not at all suit a struggle of peasants and a movement peculiarly modern, one that forms part of the grand contest in Europe and America between the old possessors of education, wealth, and power, and the newly fledged democracy, hardly aware of its own strength, and certainly unable yet to direct that strength for the general good. Our sketches this week are from the west of Ireland, the original home of boycotting and the residence of Captain Boycott himself.

Shillelagh, on the other hand, the first weapon that an untrained agricultural mob seizes when exasperated by wrongs or agitated by orators from the cities, gets its name from a town. The shillelagh may be said to be extinct in Ireland as a national trait, as dead as that quarter-staff of England which, in the hands of Friar Tuck, laid low Robin Hood, the patron saint of moonlighters, rapparees, and poachers. At the cattle fairs the peasants and the tenant farmers of low degree appear with nothing more formidable than a thin stick. Not so the educated men who are the leaders of the Nationalist movement. They have a romantic attachment to the things of old, to all that recalls those "good old days" when Ireland is supposed to have been free, when in cold truth she was torn between the expiring efforts of the clan system of the natives and the growing power of the feudal system of the governing families. Ireland was never more wretched than during the period of faction fights, hard drinking, Irish humor, and the shillelagh. But in the heat of the combat, when local autonomy is felt by the nation to mean self-respect and a chance to share with England the benefits of democracy, the fighters do not look at history so coldly. To such men the shillelagh is an emblem.

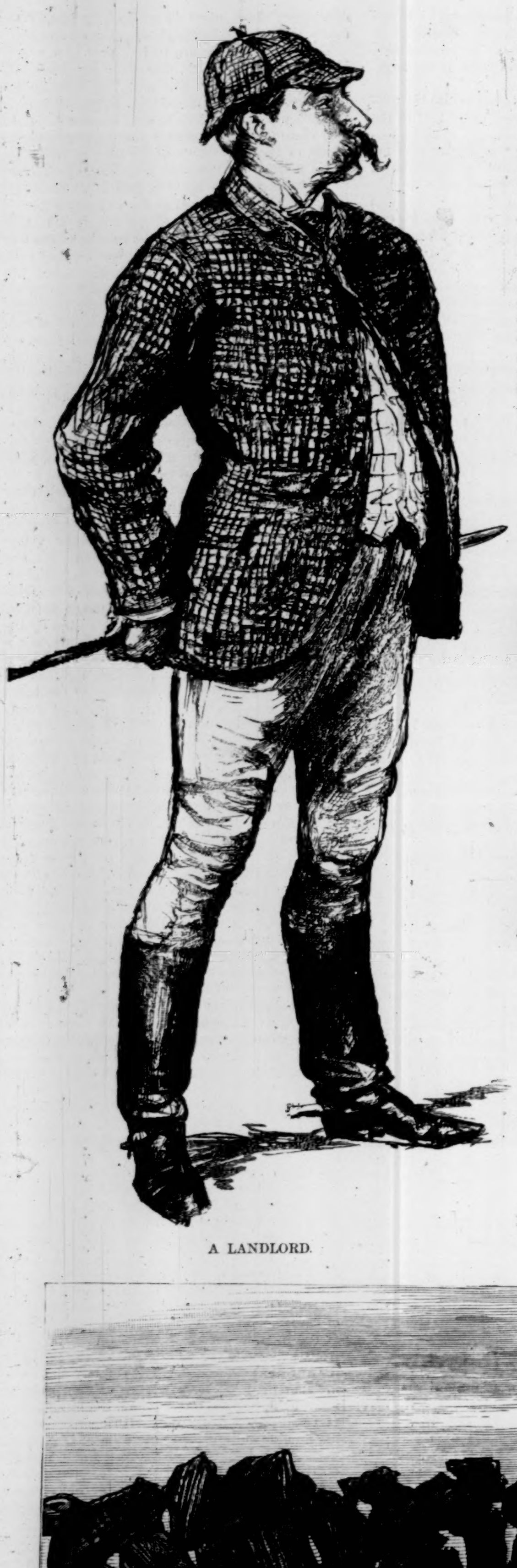
The orator we picture in full face is a noted Nationalist of Munster, who calls his knobbed stick his "Tipperary toothpick," in allusion to the swashing blows delivered in Tipperary by the "byes" when a ruction was in progress. For ever since Oliver Cromwell made a pretty clean sweep of the best lands of Ireland in order to settle thereon his bands of Ironsides, the Tipperary peasantry, half English, half Irish, combine the doggedness and dash of the two islands.

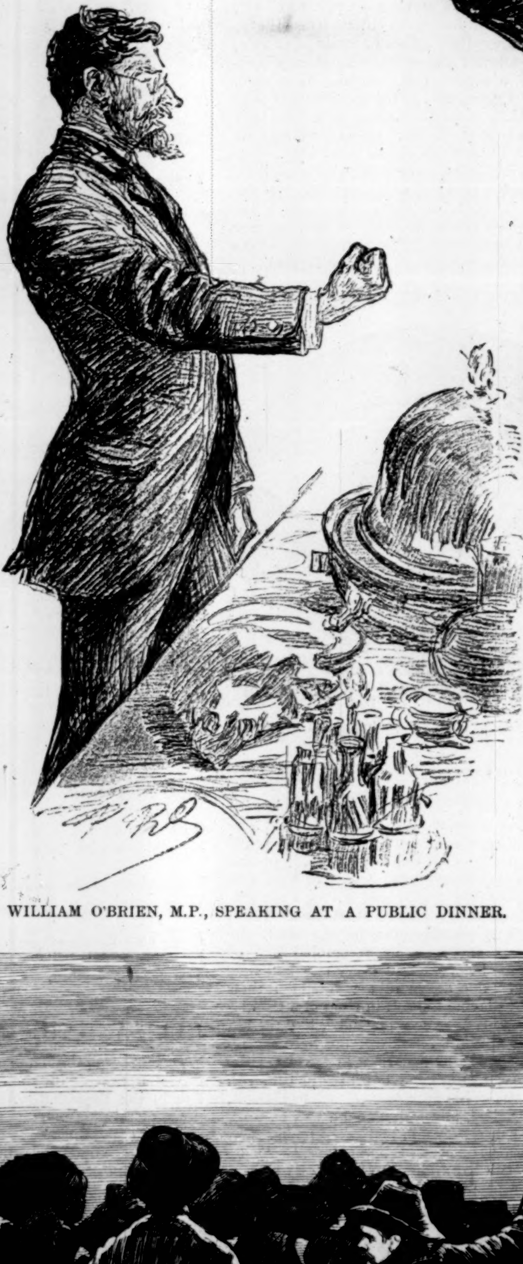
A very different sort of person is William O'Brien, released recently from prison, whom the artist has hit off just as he reaches a crisis in a speech after dinner. The artist has made his features a trifle more prominent than nature, but caught well the expression of his eyes, for he is near-sighted and uses glasses. Mr. O'Brien was born at Mallow, in a quaint thatched house on a straggling street such as is common to Irish towns. The peacefulness of the landscape in that heart of southern Ireland loses its grip on him when he pens a diatribe against the Tories in his paper, *United Ireland*, published in Dublin. He is famous for the bitterness of his paragraphs, which are usually printed in solid columns, with the titles to one side of each paragraph in bold-faced type. *United Ireland* is an extremely abusive sheet, conducted with great ability nevertheless, which sometimes holds up its political opponents to ridicule in a very effective way. Since his last term in prison William O'Brien is more popular than ever with the four million Nationalists of Ireland and the million of Irish of the middle and lower classes settled in Great Britain. This must account for the effect produced by his speeches, for he is not a magnetic figure, nor a great orator in any sense. But after speaking a few moments his thin, sallow face lightens up with the intensity of his convictions, and the words come quick and apt. It would be a dull man who did not warm to the liveliness of an Irish audience, and Mr. O'Brien is far from dull. He showed good sense in New York by declining to appear when certain politicians wished to use him for their own ends in American politics. On the other hand, his refusal to wear the prison uniform when he was last in jail, while it called attention to the barbarity of the Tory treatment of political prisoners, exposed him, with some reason, to ridicule. Mr. O'Brien, however, is by no means lacking in a quiet humor of his own. It is nevertheless a fact that many Irishmen have a keen sense of what is ridiculous in other people, but are too eagerly on the watch for the fun to be extracted from the failings of their neighbors to perceive when they themselves are caught in a bull or a silly fix.

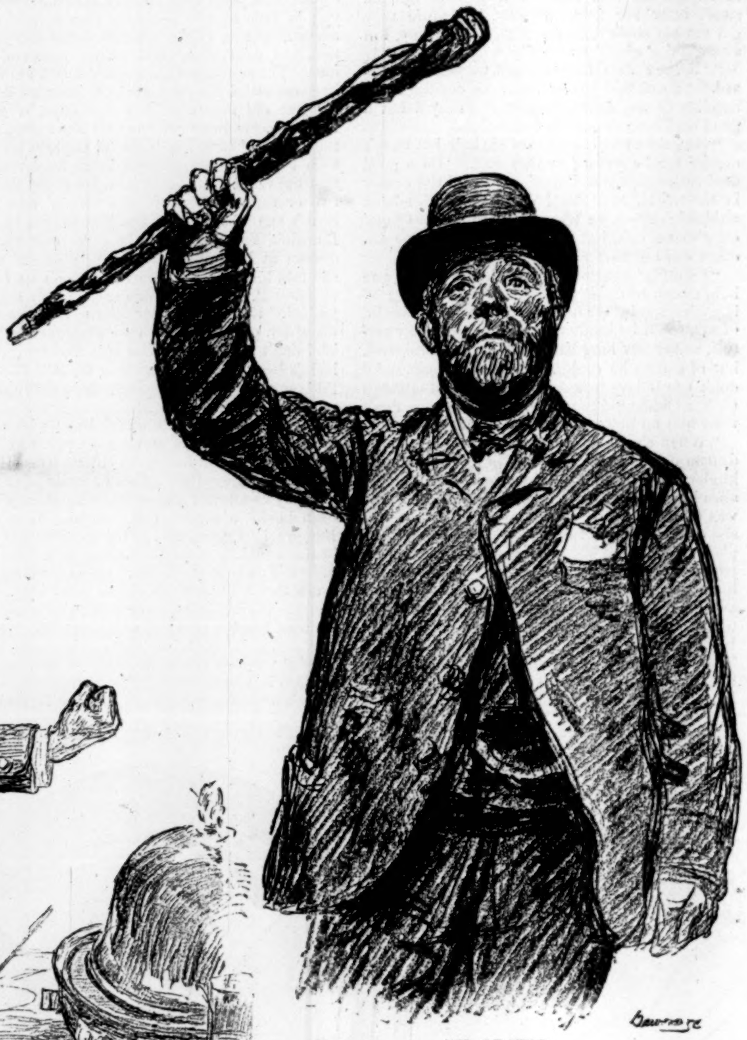
William O'Brien, owing to the vigor of his intellect, does not need support, but a large number of the National representatives in Parliament have to be supported by contributions from this country, Australia, and the Irish in England. But so much has been made of these helps from outside that the local support is underrated. Ireland pays more than her share of taxes to the general government, if her proportion is estimated in the only fair way, according to the wealth of the island. She is cursed now, as always, by the absence of her rich men. In addition to all this the four-fifths of her population that are Nationalists have to support their Church and their representatives. It is not a new situation by any means. Thackeray recalls in *The Irish Sketch-Book* the scene at the chapels in Dublin during the agitation for Repeal of the Union. It was O'Connell's "rent-day." "Every door was barred, of course, with plate-holders, and heaps of pence at the humble entrances and bank-notes at the front gates told the willingness of the people to reward their champion. The car boy who drove me had paid his little tribute of fourpence at morning mass; the waiter who brought my breakfast had added to the national subscription with his humble shilling; and the Catholic gentleman with whom I dined, and between whom and Mr. O'Connell there is no great love lost, pays his annual donation out of gratitude for old services, and to the man who won Catholic Emancipation for Ireland." The same spirit of self-sacrifice to get the country out of the old ruts of misgovernment and poverty is seen to-day. But there is a larger, more united public bent on reform. Names no longer have the power they had in Thackeray's time; the snobbishness punctured by that inimitable good-humored cynicism of his has abated something of its virulence in Dublin as well as in London. "Oh, that old humbug of a castle!" he cried; "it is the greatest sham of all the shams in Ireland."

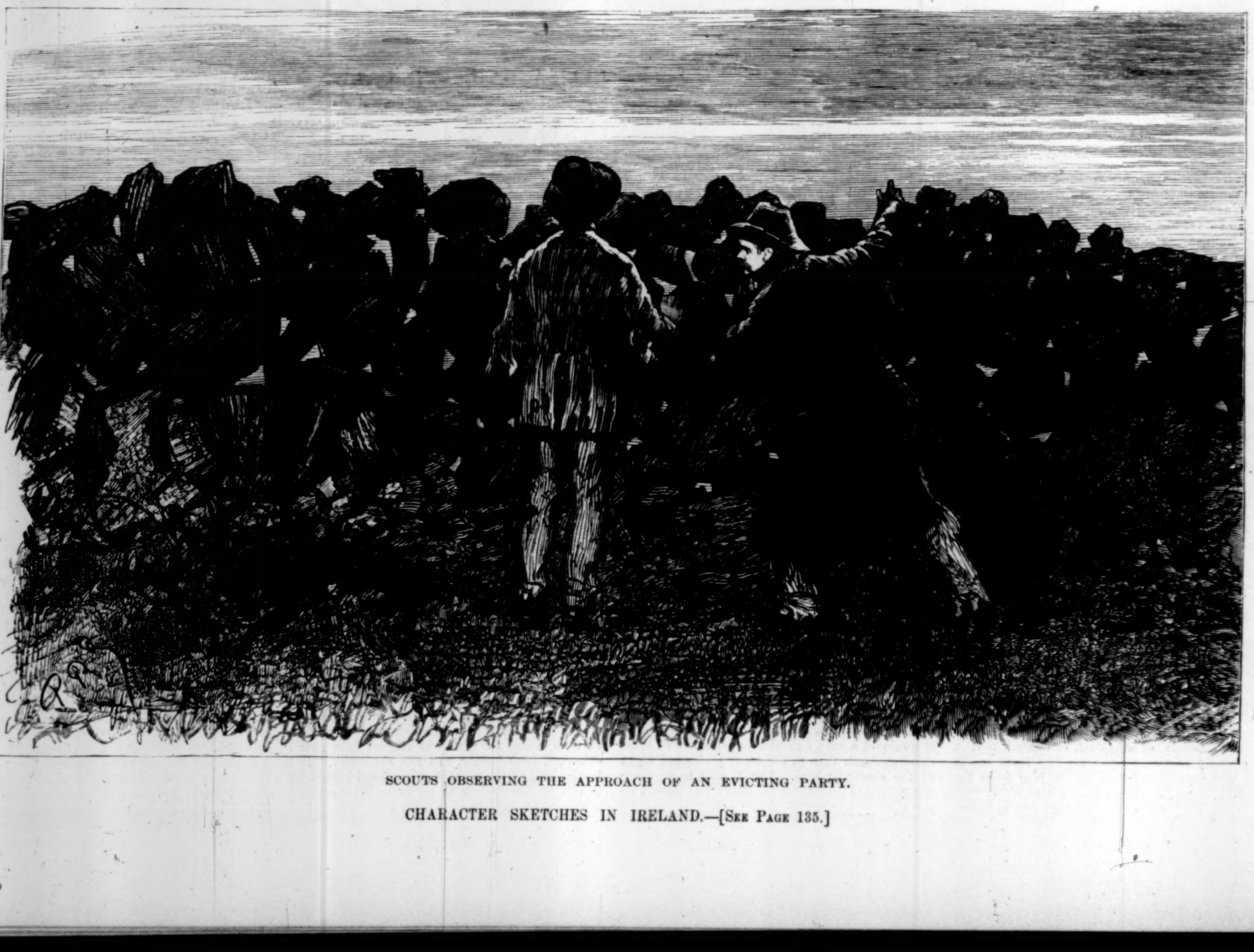
"Here they come!" An eviction is about to take place on a remote farm in Galway, and scouts have been lying behind hedges all night to give warning to the inmates of the threatened hovels. Bailiffs, crowbar men brought from Belfast, police armed with rifles, and a squad of red-coats take the road at the "screech o' dawn," and devise various stratagems to foil the rural vigilantes. But the scouts are better acquainted with short-cuts than any of the advancing host, and long before the latter come in sight the hot water and stirabout are boiling, the ladders are drawn up, and the little garrisons are at their posts. Reporters for the principal Irish and English papers chase the column in side-cars, and in their eagerness to set down every item get in the way of the crowbar men and police. If the case is flagrant, Michael Davitt, William O'Brien, or some English member of Parliament who fights under Gladstone is on hand to endeavor to stop the proceedings by protests which are always futile. The military and police are to be pitied, for they have to do dirty work, and take by assault hovels or poor farm dwellings containing nothing but shrieking, excited men and women firmly persuaded of the sanctity of the cause they defend, the cause not merely of their individual hearth-stones, but of the nation.

The landlord, whose portrait we give, is a judge of horse-flesh, well educated, and a gentleman, but his race has fallen on evil times. Irish estates are embarrassed in many ways, and very often the kindest-hearted man, who owns the land in name, is helpless to save his own tenants from rack-rent and eviction. By English law the estate may be so crippled with annuities to female and junior members of the family that only when everything runs smoothly, and crops sell at their highest, is anything left for the real heir. The gentleman taken by the ready pen of our draughtsman received five or six thousand dollars a year from a Galway estate going through the Courts of Chancery. The industrial depression, aggravated by the efforts of the politicians to secure the lifting of their worst burdens from the shoulders of the laboring classes, has made it impossible for the court to continue the allowance. The consequence is that landlords in the position of this gentleman and his father are really as much objects of charity as the peasants. Perhaps in one sense they are more to be pitied; for while the peasant has the barest needs, and is used to live and be cheerful on the narrowest limits of subsistence, the landlords are totally unprepared to be left penniless, since they have the habits of men who are used at least to moderate comforts. Thus a great change in the relations of classes toward each other such as goes on in Ireland, with all its features sharply defined, has two sides, neither of which is very comforting to consider.

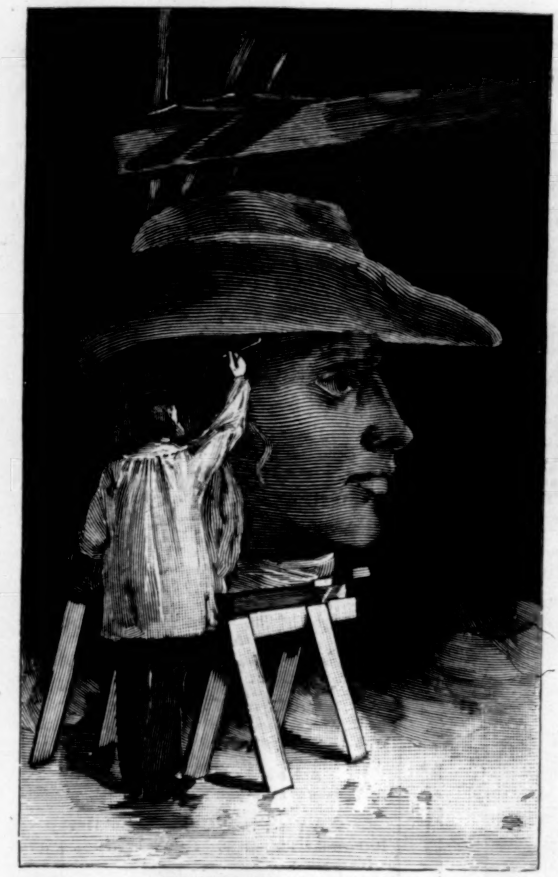

A LANDLORD.


WILLIAM O'BRIEN, M.P., SPEAKING AT A PUBLIC DINNER.

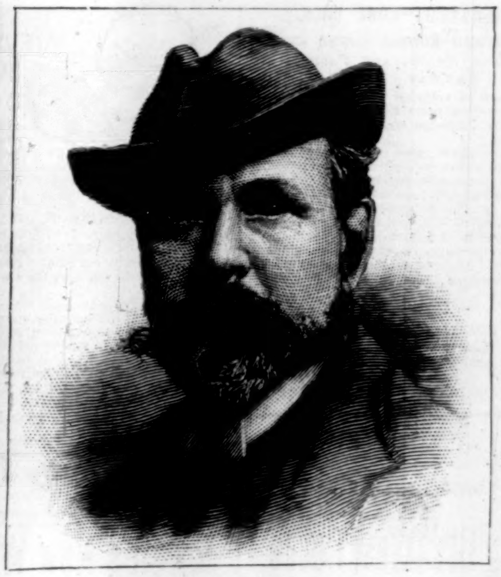

AN ORATOR.


SCOUTS OBSERVING THE APPROACH OF AN EVICTING PARTY.

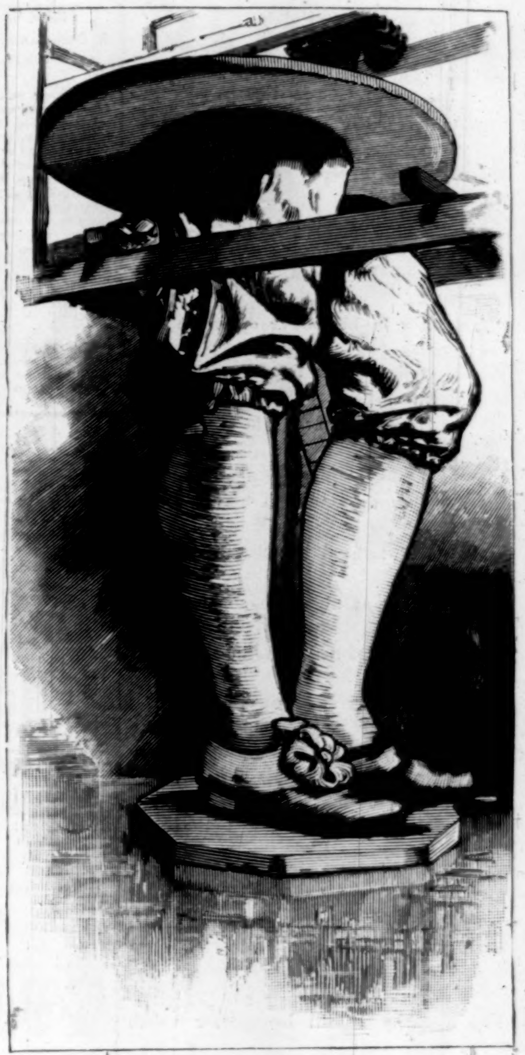
CHARACTER SKETCHES IN IRELAND.—[See Page 135.]



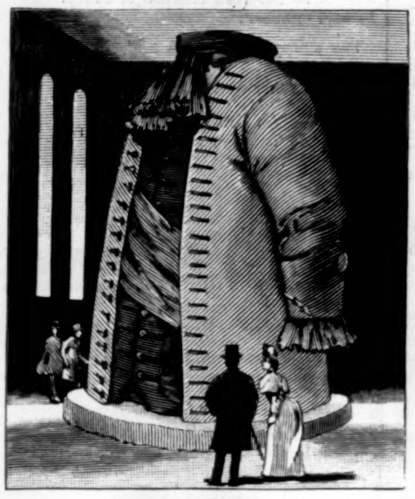
MODELLING THE HEAD OF PENN.



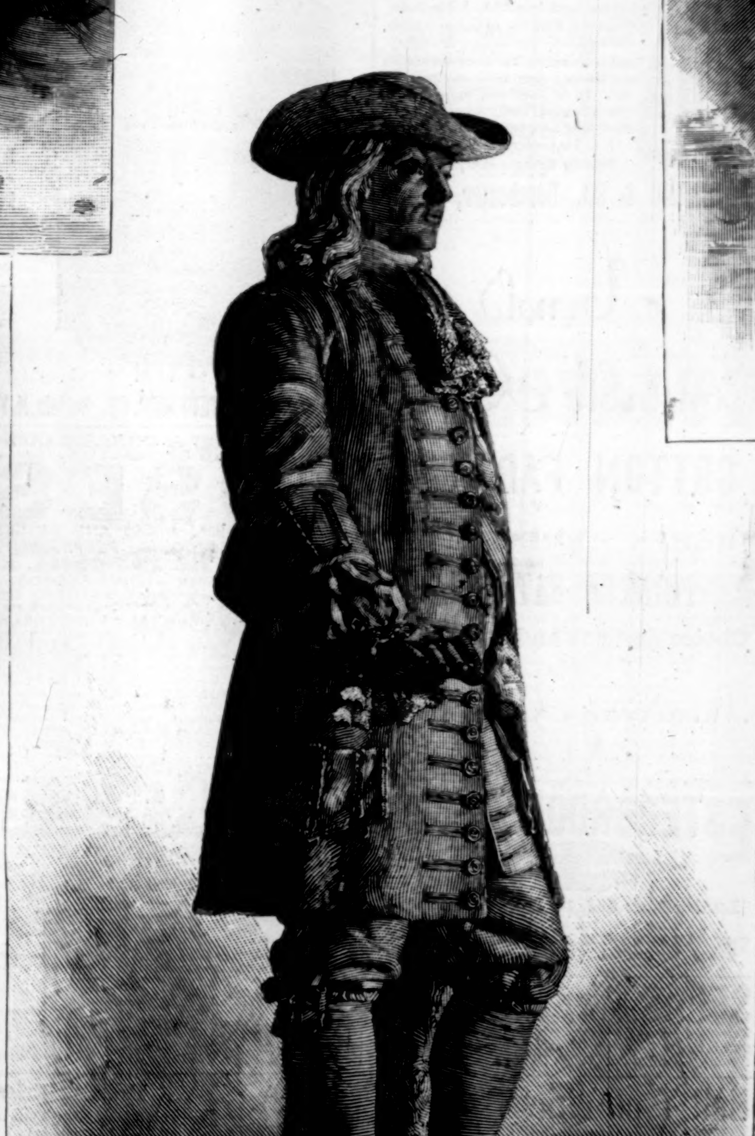
MR. A. M. CALDER, SCULPTOR.

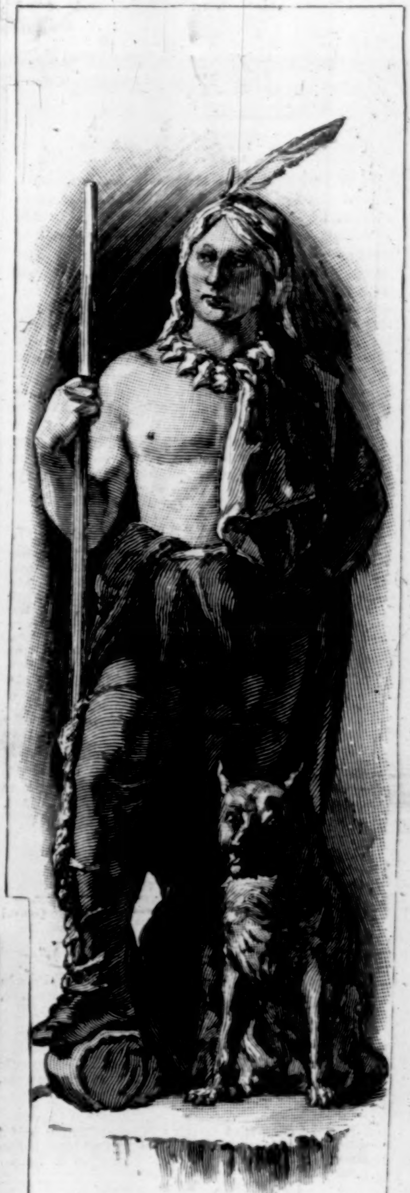


LEGS OF STATUE.

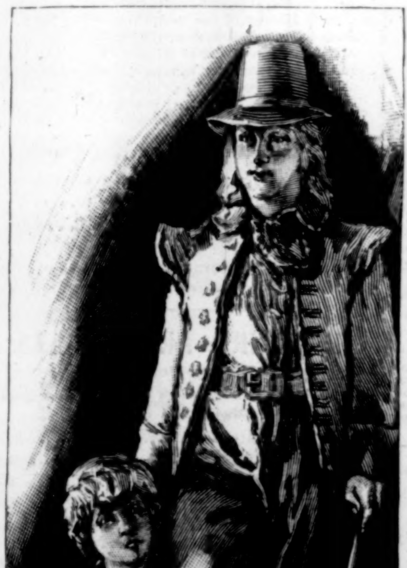


THE MODEL-ROOM.

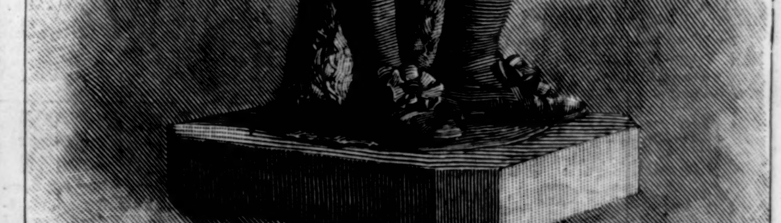




INDIAN GROUP.



A SWEDISH GROUP.



STUDIO OF SCULPTOR.

THE STATUE OF WILLIAM PENN FOR THE TOWER OF THE NEW CITY HALL, PHILADELPHIA.—From Photographs and Sketches by S. F. Yeager.—[See Page 131.]

CONTENT.

I.

In his garden he wandered about all day,
And watched the flowers about him blow;
His heart was as light as the heart of a jay,
For only white clouds did his vision know.
He trimmed his roses and read his book,
And sang in his bower of breeze and scent
To the birds, as his lingering steps he took,
"God pity the man who's not content!"

II.

His neighbor to commerce was strongly wed;
He would talk of nothing at all but trade;
Though weary at night when he laid his head
On the pillow, for morning he ached and prayed.
He was busier far than the "busy bee,"
As for millions and millions of gold he tried,
And he sang, in his restless activity,
"God pity the man who's satisfied!"

III.

They both are gone, and they're both forgot—
The happy dreamer, the man of trade.
Each one was satisfied with his lot,
And each at the other's content dismayed.
And I fancy I still hear their voices blent
Come in through the window, open wide:
"God pity the man who's not content!"
"God pity the man who's satisfied!"

R. K. Munkittrick.

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When she was a Child, she cried for Castoria,
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When she had Children, she gave them Castoria.—
[*Adv.*]

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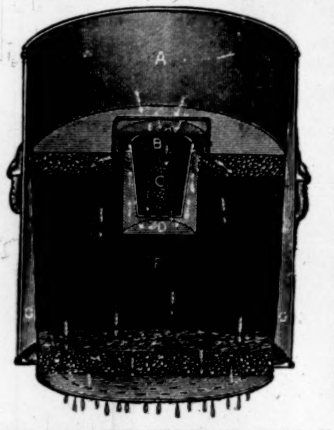

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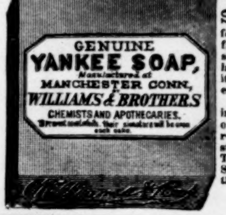

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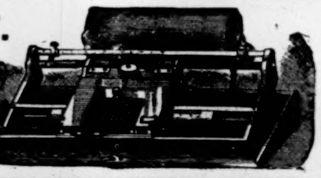

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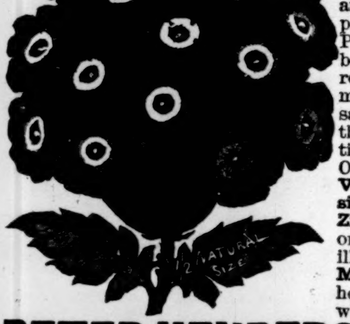

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Vol. LXXVI., Number 454.

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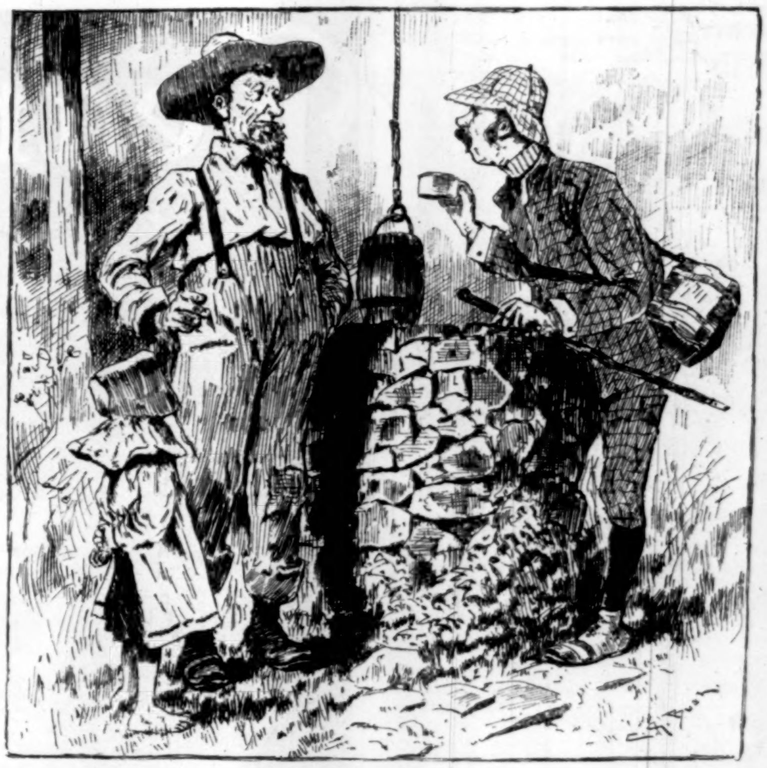

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Everybody will want to read this beautiful story, which begins in March HOUSEWIFE. March number also contains: **Bachelor Housekeeping,** by Annie L. Jack, showing how two bachelors kept house; an amusing story by Alice Wellington Rollins of **A Poor Rich Man; Thrift or Shift,** by M. Helen Lovett; **How Huldah Kept House,** by Eunice Carew; **Dutch Treats,** by Mary C. Hungerford; **Mirandy,** a racy story, by Charlotte Molyneux; delightful poems by Kate Upson Clark, Eva Lovett Carson, and Bessie Chandler. Catharine Owen, whose bright, practical story on **Keeping House Well on Ten Dollars a Week** has delighted so many people, will give us some of her favorite recipes. Maria Parloa will begin a series of articles on **Some Things Every Housekeeper Ought to Know.** Juliet Corson will tell us **How to Buy and Use Beef to the Best Advantage;** while May Kingston will furnish **Old-fashioned Cookery.** The celebrated Dr. Frank, author of the popular books, **The Health of Our Children** and **Health in Our Homes,** and whose practical articles on how to keep well have made him famous, will give us a little talk on **Diphtheria and How to Guard Against It.** Christine Terhune Herrick tells us of **Some Important Trifles in the Nursery,** and makes timely suggestions on the care of the little ones. Mrs. M. P. Handy will describe the new **Fashions** and help us in our **Home Dressmaking.** Eliza R. Parker shows **How a Pretty Parlor Was Made at a Small Cost.** Harriet Bridge's attractive illustrated article on **Fancy Work and Home Decoration** will delight all. Mrs. Crockett's page on **Brush and Palette** will furnish our amateur artists much-needed information. Mrs. M. E. W. Sherwood, the noted writer on etiquette, author of **Manners and Social Usages,** will tell us **How to Behave;** while an **Exchange Department** in the hands of Agnes C. Stoddard leaves little to be desired.

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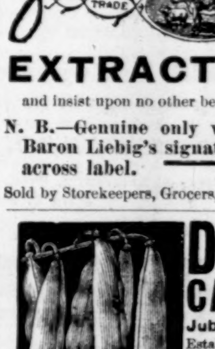

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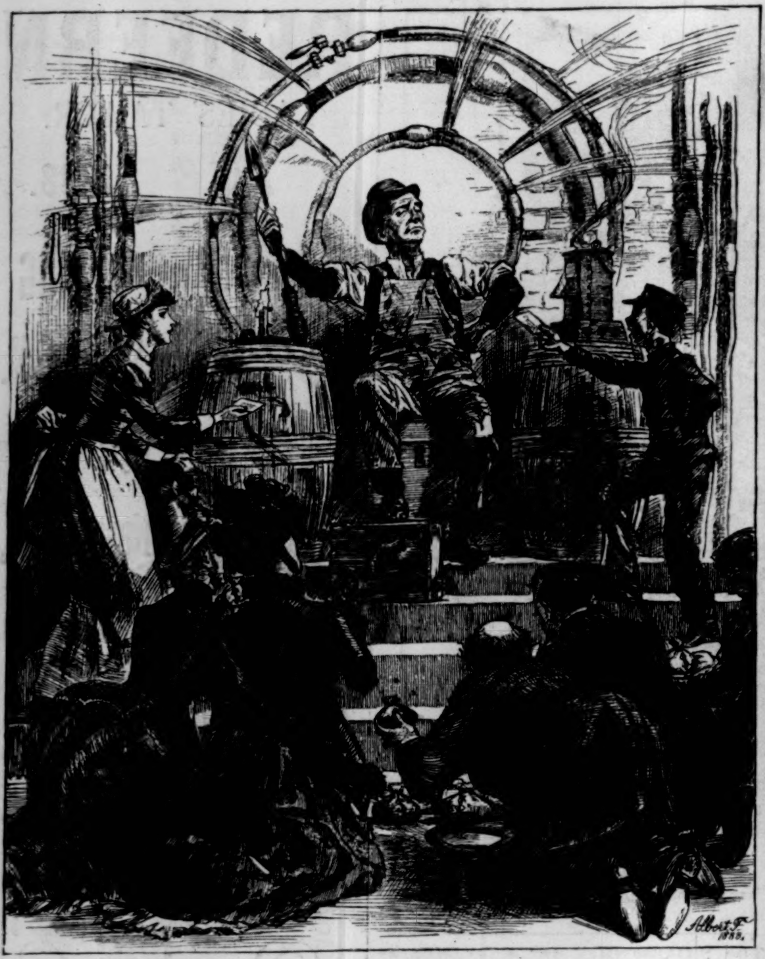

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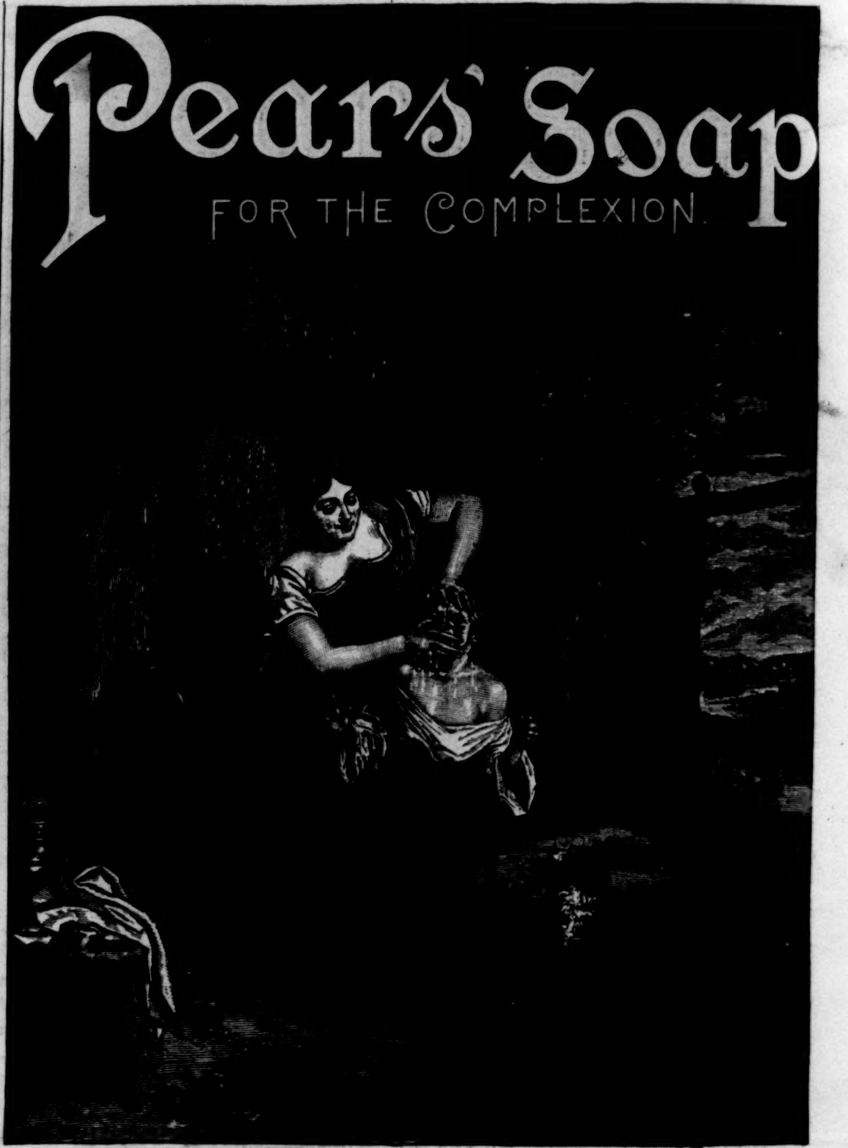

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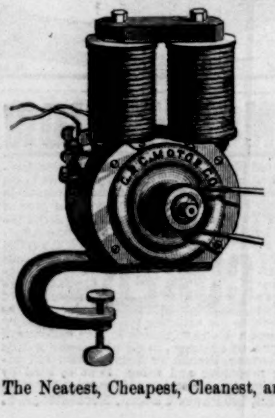

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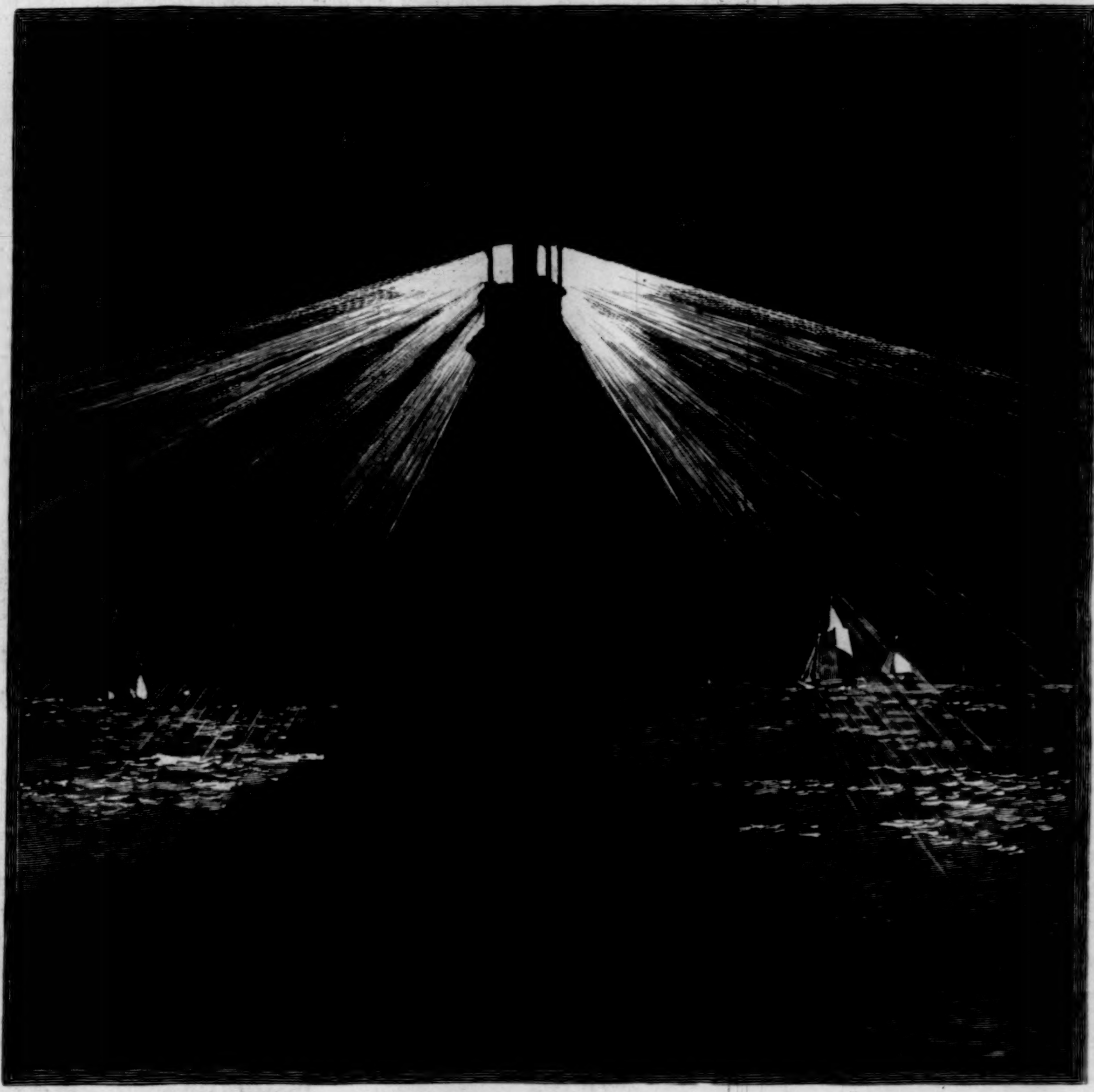
RECENT DEVELOPMENTS OF ELECTRICITY AS AN INDUSTRIAL ART.

By SCHUYLER S. WHEELER.

A NEW science and a new art have sprung up within the last few years with a rapidity never conceived of as possible, and not appreciated even now in the highest rush of its advance. The science born a short time ago has furnished the possibilities for the arts of applied electricity at once so potent and so novel that the world is carried away with them. From the stage of discovery and experiment of a few years ago, electricity has already developed to the position of employing a thousand million dollars capital, and there is no force from which more wonderful results are expected for the future.

There is a prevailing idea that electricity is mysterious, almost supernatural, and that it is useless for any but the gifted, and those who can devote their entire time to it, to attempt to understand its principles. What has been the cause of this feeling? Undoubtedly it is that the arts and appliances which spring from the development of the unusual features of electricity produce such marvellous results as to appear mysterious, and so discourage investigation, although they are merely the natural results or sequences of the remarkable fundamental properties of the new force upon which they are founded. Certainly its properties are of such an extremely unusual kind as to appear almost magical, and when utilized, to produce results strangely unlike everything previously seen. These peculiar properties, while operating in new ways, are at the same time capable of acting with great power, and are therefore of great industrial value.



THE LARGEST LIGHT IN THE WORLD.

We know that light travels with such enormous speed that it reaches us from the stars in a short time, but it has no power, and we cannot feel it. In technical language, it is difficult to get an effect from it. On the other hand, we can get great power from steam or compressed air, the power being really due to heat in disguise, but it cannot travel very rapidly. Can we conceive of an imponderable ray travelling with the speed of light, and carrying the power of steam? Such is electricity. Hence its usefulness for either the telegraph or the motor. Electricity is in nature midway between light and heat, possessing some of the qualities of each. Like both, it is supposed to be a kind of vibration or internal motion of the atoms or infinitely minute particles of which all substances are composed. Heat is known to be a disorderly motion of the atoms, and anything like hammering or rubbing which might be expected to set these particles in motion does visibly produce heat. Apparently there is some order or system about the class of vibratory motions which we call electricity, for when forced through a conductor which is too small to permit this orderly motion to be maintained, the motion becomes disorderly, and we feel it as heat. If the conductor is still smaller, so that the heat is greater and more concentrated, light is given off. By this simple transition the electric light is produced.

One of the great advantages of electricty in all kinds of work is that by using a sufficiently large conductor it can be led quietly in any quantity, and without loss or transformation, to the place where it is to be used, and there nearly all converted into light, heat, power, or chemical action by a simple change in the material of the conductor at the place where the effect is to be brought out. For practical purposes to produce continuous power it is necessary to use a machine in which one part of the conductor revolves, and is arranged to pass and repass another part of the same conductor actuated by the attractive power of the electricity upon itself; and this brings us to the most important and peculiar property of an electric current, namely, its power of exerting an attractive force upon another body of electricity apparently without any means of reaching it or bridging the space between the two, in the same way that a magnet attracts a needle or bit of iron apparently without any means of reaching it. In fact, magnetic attraction is now regarded as being the same thing as electrical attraction, magnetism in itself being simply electricity travelling round and round in a piece of iron or steel. This is an excellent example of the simplification of numerous puzzling scientific phenomena by the discovery that they are all due to the same cause. According to this theory, the things that we call magnetic substances, such as iron and steel and one or two others, are the few materials which have this property of keeping electricity in circulation internally. The difference between a charged wire and a magnet is that the latter attracts lengthwise, while the former attracts crosswise or broadside. This is always found to be the case, for a charged wire must be held crosswise to produce the same attraction as a magnet held lengthwise, and a piece of iron becomes magnetic itself when a charged wire is held crosswise near it, or, better, when wound around it. This external influence or attractive power plays a very important part in electrical machinery, and some illustrations are given to indicate how it is supposed to act in the invisible ether or medium through which this power must be exerted. Fig. 1 represents an ordinary bar magnet, and Fig. 2 a wire through which electricity is passing. The fine lines represent the directions in which the magnetism acts, or, in familiar words, the direction in which the magnet pulls. The magnet and the wire with current both have the property of throwing out lines of attractive power into space, but while the force of the magnet is lengthwise, or tending to attract an object to it at its end, the force of the wire is sidewise and encircling it, and therefore tending to move a magnetic body around it or past it. In this respect, then, the force which a charged wire exerts is exactly at right angles to the force of a magnet. But by placing a great number of charged wires side by side, so that their total width is greater than the length, we form a mass in which the attractive force acts in the direction of the apparent length, and we have a body which is in all respects a perfect magnet. In practice the necessary number of wires side by side are obtained by winding a single long wire into a coil, like thread on a spool. The perfect resemblance of the magnetic effect, attraction, etc., produced by passing electricity through the wire when wound in such a coil gives an idea of why electricians conclude that magnetism is simply unrecognized electricity circulating around in the magnet. The great value of the coil magnet in practice is for obtaining motion or power by electricity. If the attempt were made to utilize the attractive power of two simple magnets, after they had rushed together they would stick, and as much power would be required to separate them as was furnished by their going together. Whereas if one plain magnet and one coil magnet with electricity are used, the moment they have rushed together they can be drawn apart without effort by first stopping the flow of the electricity in the coil, when the attraction instantly ceases. After they are drawn apart the current may again be sent through the coil, when the action will be repeated. Soft iron has no magnetism of its own, but is capable of receiving it instantly from a surrounding coil, and losing it instantly when the current is stopped, and a bar of it is usually placed in the centre of the spool to help to gather the force and bring it to one point—the end of the soft iron bar. This arrangement is called an electro-magnet, and is used almost universally in electrical machinery. The click of the telegraph is the noise made by a small electro-magnet suddenly attracting a piece of iron when the current is sent over the telegraph line and around the coil of the magnet. All apparatus by which power or signals and motions are produced by electricity are dependent upon this property of a coil of wire of exerting magnetic power and becoming neutral instantly at the will of the operator or by the automatic disconnecting or valve action of the machinery.

Let us pass now to the practical application of some of these remarkable principles. The largest electro-magnet in the world is shown in Figs. 3 and 4. It was made recently at Willet's Point, New York Harbor. Two 15-inch guns, each weighing twenty-five tons, and joined together at the breech by a pile of railroad rails, were surrounded by coils of torpedo cable aggregating six miles of wire. When the current from an electric light generator was sent through this cable it converted the cannon into a magnet of such strength that a pull of ten tons applied by the windlass and chain was required to pull off a bundle of iron plates which had been laid against the muzzles of the guns, as shown in the engraving. Of course there was no fastening excepting the invisible lines of magnetic force depicted in the imaginary sketch, Fig. 1. A curious illustration of the tendency of a magnet to attract only in the directions in which it puts out lines of force, as shown in Fig. 1, was that a spike held inside the gun would fly out violently, and go about two feet from the gun, and then come back and stick to the muzzle on the outside. The other illustration of the immense power of this magnet is taken from a photograph showing one of the guns sustaining four 15-inch shells hanging from each other in a vertical line. Each of these shells weighed 320 pounds, and had no support except the magnetism which was received through the shells above it. By holding a spike or bit of iron in the hand, the invisible lines of force traced in Fig. 1 were distinctly felt even five or six feet from the muzzles of the guns. This shows how much reality there is about these lines.

To apply this immense power to driving machinery, a wheel having many strands of wire through which electricity is passing attached to its periphery, is caused to rotate by the attraction of the charged wires for magnets, or for other charged wires held stationary near the wheel. To make the rotation continuous, electrical valves precisely similar to the valves of a steam-engine are arranged so that the instant each wire has by its attraction revolved the wheel till it has brought itself as close as possible to the magnet, the current is disconnected from it and sent through an idle coil, which has been carried away from the magnet by the wheel's rotation. This wire then begins to attract the stationary magnet and revolve the wheel, while the other remains idle. The wires are usually wrapped evenly around a ring or round block of soft iron which serves as the wheel, and strong stationary magnets are placed on opposite sides of it. The valve, or commutator, as it is called, which charges each of the different turns of wire on the revolving wheel or armature at the right moment, is set so that it sends the electricity through each wire when it is in the position for approaching the magnets, and shuts it off when the coil has come up to the magnet. The result is that there is constantly a number of coils near the magnets sending out lines of attractive force to the magnets, and drawing the wheel around, while those that are up to the magnets and those that are past are without force, and do not resist being drawn away. Fig. 5 shows this very clearly, as well as the lines of attraction from the magnets joining those from the coils on the revolving wheel. It is from a photograph of some fine iron filings which were sprinkled upon

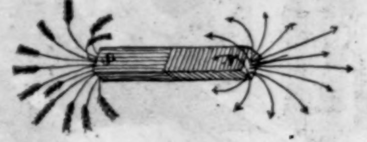


FIG. 1.—THE LINES OF ATTRACTION AROUND A MAGNET.

a glass plate and held directly over a motor. The filings, held away from the magnets and wires by the glass, arrange themselves in the lines of attraction. We see the attraction lines running out from the magnets on either side of the armature, the lines running out sideways from the wheel, and the two joining and forcing the wheel around. We are indebted for this beautiful experiment to Professor Elihu Thomson. This is the electric motor. The lightning speed at which the magnets act, together with the unlimited power which can be sent through a quiet clean wire to a motor, makes it very valuable where nothing else could be used. Fig. 6 shows a lady using a sewing-machine which is driven by a small motor with electricity generated in the battery by her side. The motor, though small, has power to drive the machine faster than she could with the treadle, and its speed is controlled perfectly by the lever which reaches up to the table from the battery. The chemicals for the battery are put up in neat tins like a spice-box, in the right quantity for one filling, which lasts three weeks, and the operation of emptying this into the pitcher-like jars is a striking illustration of the progress made within a year in improving the formerly mussy and uncertain work of replenishing batteries. These small motors are used for all kinds of work, and for factory purposes are usually supplied with electricity from the electric light wires, thus entirely dispensing with the battery. As may be imagined, the designing of motors does not stop with the simple application of the revolving wheel principles explained above, but furnishes unlimited room for skill in making them in forms convenient for use, and adapted for direct connection to the various kinds of machinery. American ingenuity has undoubtedly taken the lead in making motors of all kinds.

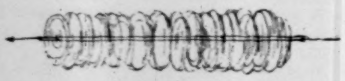


Fig. 2.—THE LINES OF ATTRACTION AROUND A CHARGED WIRE.

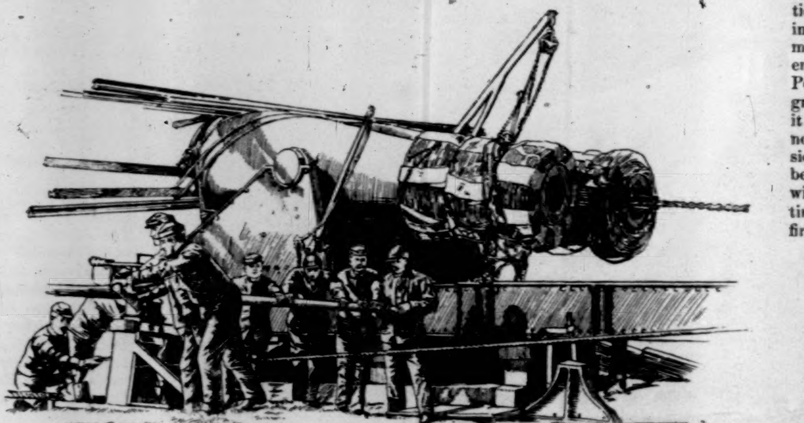


Fig. 3.—THE LARGEST MAGNET IN THE WORLD.

As an instance of the growth of the industry, thousands of the little motors mentioned have been turned out and put in use within the last year, of which to the writer's knowledge many have been furnished to England, Germany, Italy, South America, the West Indies, and China.

Our next illustration is of a locomotive in which electricity instead of steam is the power. The driving motor, which can be seen underneath between the large wheels, works upon the same principle as the small motor previously described, but has a capacity of 100-horse power. Instead of receiving its current through wires, it is connected by cables with two of the wheels of the carriage, and the current is sent along the rails of the track, up through these wheels and into the motor. The locomotive was built for the elevated railroads in New York city, and is expected to possess considerable advantage besides economy over the present steam locomotives. These steam locomotives are extremely wasteful of coal on account of their small size compared with an engine large enough to run the whole road, frequent stopping and starting, and other causes, and it is thought that by using a large economical stationary engine in some convenient place, converting its power into electricity, sending this along the tracks of the elevated road, and finally using it to propel the trains, a great saving can be effected, to say nothing of the gain in having locomotives which are noiseless and cannot drop water and hot coals. The saving in power in a large engine over an equivalent number of small ones is so great that where it is not practicable to convey the electricity to the moving cars through the rails, it is claimed to be worth while to use some means of storing electricity in the car, so that enough can be carried to propel the car and to last for a round trip. This is particularly important on horse railroads, both because the horse traction is much more expensive than the poorest kind of steam traction, and because such roads usually run in places where quiet and cleanliness are of importance. Fig. 8 is a view of a street-car arranged to be driven about thirty miles at a charge, by electricity stored under the seats in the car. This car has been in successful operation for some months on the Fourth Avenue line, New York. When it reaches the end of its trip it is run into the depot and into a berth between two long tables. The panels in the sides of the car under the windows are then removed as shown in the cut, and the storage batteries are slid out on to the tables. Wires from an electric light generator are then connected to them, and they are recharged, and slipped back into place under the seats, ready for the next trip. The motor by which the electricity thus stored up is converted into power for driving the car is placed under the car, and is controlled by a reversing lever in the hands of the driver on the front platform. The storage battery is often misunderstood. Its principle is not the storage of a quantity of electricity, but the storage of a quantity of prepared chemicals from which the electricity is generated, exactly as in other batteries. When the battery is run down, that is, when the chemicals are exhausted, it is recharged, as they say, by passing electricity through it, which reacts on the mixed or destroyed chemicals, restoring them to their former condition. They are then able to produce electricity again by recombining as before.

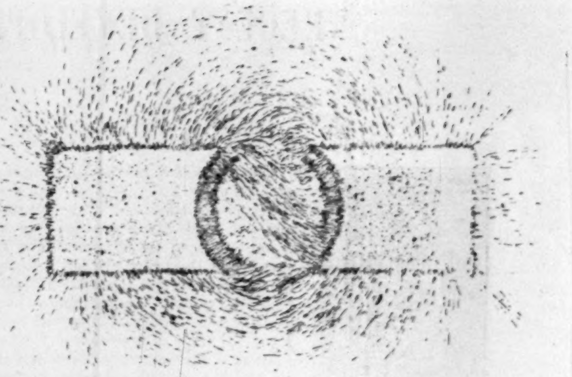


Fig. 5.—LINES OF ATTRACTION IN A MOTOR.

The electric motor is very much lighter and simpler than the steam-engine, and has the further advantage that it starts at full power the moment the wires are connected, subject, of course, to control by its speed regulator when desired. There is therefore no delay with electric motors similar to that in getting up steam in a steam-engine. These qualities are of the utmost importance in the fire-engine service, and are made use of in the electric fire-engine, which is shown in Fig. 9. Possessing these qualities it is of great value, because, being lighter, it can be transported quickly, will not add to the smoke and confusion at the fire, and the current being already on the electric-light wires from which it is run, the time usually spent in getting the fire in the engine started is saved. As the power is supplied from the electric-light station, over the regular wires, to which suitable attaching-boxes are connected conveniently near the hydrants, a large part of the cost of the individual engines is saved. The difference between an electric fire-engine and a steam fire-engine is that, in place of the complicated steam-engine and boiler which are used to drive the pump, and which gives the apparatus its bulky appearance, the pump of the electric fire-engine is fitted with an electric motor directly on its shaft, and very much smaller than the steam-engine, but of equal or greater power. Upon reaching a fire the connecting wires from the electric engine are hooked into the box on the electric-light post, from which wires run up to the electric-light wires above. The engine is then ready, as in the picture, for instant operation at full power. Fig. 10 is a typical commercial motor, of medium size, for all kinds of manufacturing work. This is run directly from the electric-light wires, and though small in appearance, is capable of running a fair-sized machine-shop. It is at least five times as small as an equivalent steam-engine, and requires no boiler attention or handling of coal. The power may be brought in by wires through the window-casing, and the whole machinery started and stopped by turning a switch.

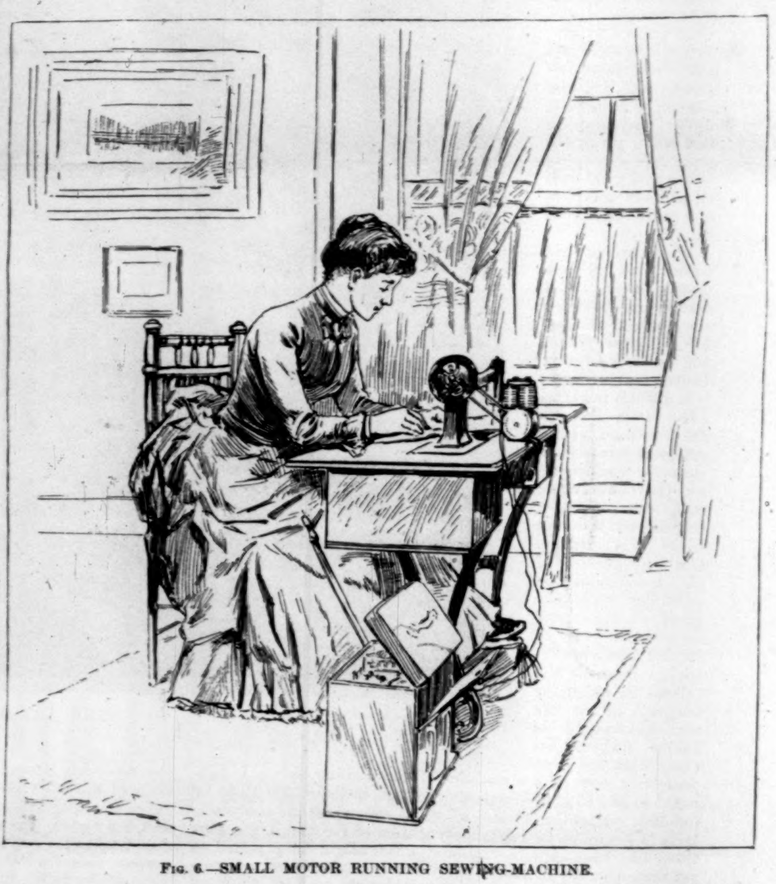


Fig. 6.—SMALL MOTOR RUNNING SEWING-MACHINE.

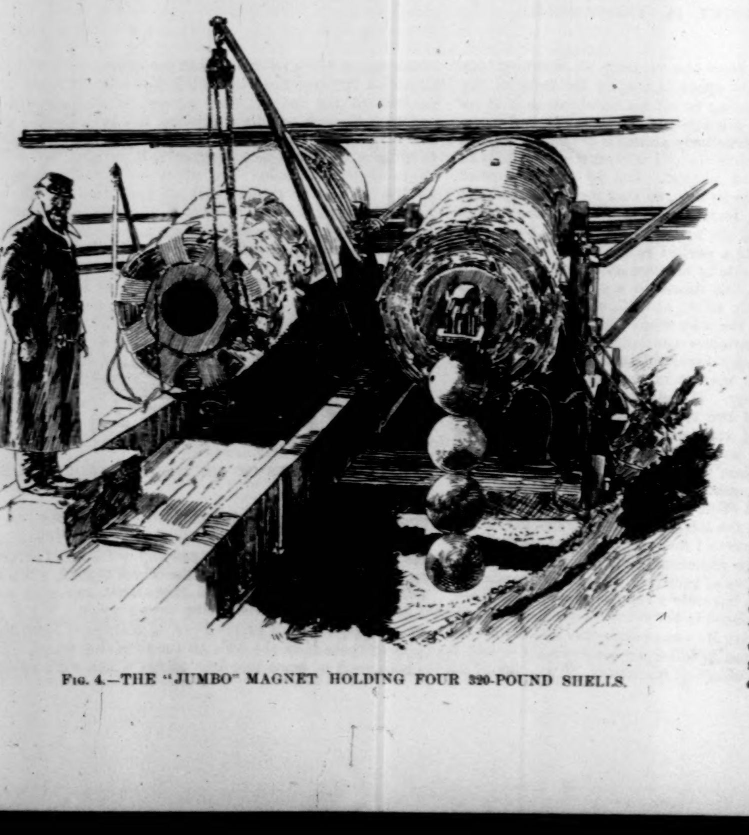


Fig. 4.—THE "JUMBO" MAGNET HOLDING FOUR 320-POUND SHELLS.

With the growth of the use of magnets and electricity much trouble has been experienced from the derangement of watches by magnetism. The lines of force (of Fig. 1) form an invisible halo of magnetizing power surrounding all magnets constantly, and all wires that are charged, and as this force is invisible, effects are often produced by it when magnetizable bodies are brought within reach, without the reason being apparent. This is the cause of the fatal injury to watches by magnetization which is becoming so frequent, even when in the possession of careful people, who of course do not always know when they are in the vicinity of a charged wire or magnet. When any of the moving parts of a watch are magnetized, the stationary parts attract them as they revolve. The strength of magnetization varies with every change of temperature, etc., consequently the effect cannot be compensated for by any regulation of the watch. The only way to overcome the difficulty is to avoid steel in making the moving parts of watches. The parts that are usually made of steel are the delicate, rapidly moving balance-wheel and the fine hair-spring under it. So great has the destruction of old-style watches by magnetism become that a non-magnetic watch company is doing a large business manufacturing new watches without steel. The balance-wheel and hair-spring (Fig. 11) are made of palladium and iridium, two excellent spring metals which are entirely unaffected by magnetism.

All of the applications to machinery which we have so far reviewed depend entirely upon the property of electricity of attracting and producing magnetism. Let us now look at some of the important electrical processes, etc., which depend upon its faculty of being easily converted into heat at any desired place and in any part of its conductor. First we have the electric light, which in itself covers a range of sizes or powers more extensive than the candle, the gas-burner, and the calcium lights combined. As said before, heat is the motion in disorder of the atoms which compose substances, while electricity is the orderly motion of the same particles. Upon slight provocation—as, for example, when forced to pass through a conductor which is so small that the order of the vibrations cannot be maintained—the electric vibrations become disturbed or broken up and relapse into heat. This at once gives us a new feature, namely, the capability of an internal development of heat as contrasted to an external one, which means practically that all of the heat from the electricity is concentrated in the wire that we wish to make hot, and none is lost as in the usual way of making the surroundings hot enough to heat the wire. It is also a great advantage to be able to produce intense heat at a particular spot by passing a current through a wire and thinning the wire at the desired place. The higher incandescent or luminous heat is obtained by making the section of the wire still thinner, which brings it to a heat of dazzling brilliancy. This is the whole principle of the electric light in a nutshell.

There are in use to-day in the United States about two million electric lights. These have all been made and put in operation within seven years, which is the entire length of time that has elapsed since the economy of the method was appreciated. Electric lights are of two classes, known as "arc" and "incandescent." The latter, named from the incandescent heat of the thin wire, consists of a fine wire or filament of any substance which will stand enormous heat, enclosed in a glass, so that the air can be removed to prevent its burning up at the high temperature. These lights, which are usually small, are very soft and pleasant to the eye, and are used for in-door illumination. The arc lights are produced by the current passing from the end of one rod of

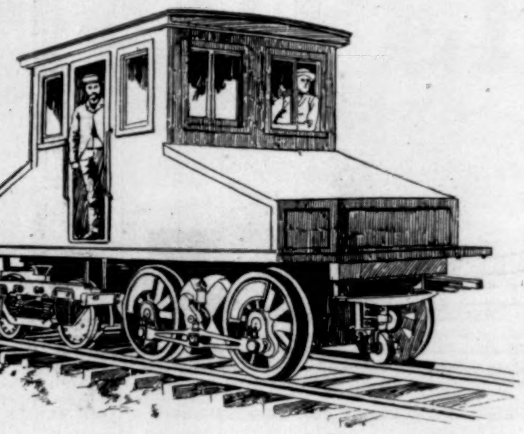


Fig. 7.—ELECTRIC LOCOMOTIVE FOR RAPID-TRANSIT RAILROADS.

carbon to the end of another rod through the vapor produced by the burning of the carbon, and is named from the curved or arc-shaped path which the current takes in passing through this vapor. The passage of the current heats the particles of carbon in the vapor as well as the tips of the rods to an intense degree, and gives off a light of absolutely unapproached brilliancy. They are now used for street illumination, light-houses, man-of-war search-lights, etc. They are being extensively adopted for the more important light-houses all over the world. The light is easily recognized by its slight bluish tint and its brightness beyond the power of any other light. The largest one in the world is in the light-house at Sydney, Australia, which equals 186,000 candles, and can be seen fifty miles. Some idea of this may be gained by comparing other lights. An ordinary gas-burner is of 16-candle power. The bright electric lights in the street are 1200 to 1500 candle power. The statue of Liberty light is 48,000-candle power. Going to the other extreme we have very small lights of 1, ½, and even ⅛ candle power for special purposes. They have been used for house decorations, in the hair with ball costumes, in bouquets, etc., but the important uses are for illuminating for exploration places into which no burning light could be introduced. We illustrate the method recently devised by medical electricians of illuminating the interior of the stomach for examination. The patient is laid upon the operating table, and a slender tube carrying a glass bead upon its end is introduced into the stomach. A small light inside the bead is supplied by fine wires running out through the tube and connected to a small battery. The interior of the stomach is plainly lighted, and all parts of the stomach are brought into view by a small movable mirror at the end of the tube. Such appliances, while not being of great commercial importance, are nevertheless very valuable. When wanted at all, they are priceless. Another application of electricity for physicians is the electro-cautery lancet or loop shown in Fig. 13, by which the principle of electric heating is applied to surgical operations. The instrument consists of a loop of fine platinum wire mounted in a rubber handle, through which connecting wires pass. These wires are led to a battery, the current from which follows the wires, and keeps the platinum loop white-hot. The heat is inside the wire, as it were, and can be regulated to any intensity, and kept there during an operation without withdrawing the instrument for reheating.

Another important application of electric heating is the electric welding process, which is the invention of a number of men, but which has been put into practical shape by Professor **Thomson**. The parts to be welded are clamped in vises and pressed against each other at the point where it is intended to unite them. A current of great heating power is passed through the joint by suitable cables fastened to the vises, and the single spot where the joint is is brought to a melting heat and cooled off again before the heat has had time to spread any distance through either piece. The scaling or defacing of the pieces by the action of the coals when buried in a blacksmith's fire is thus avoided, and the risks of a bad joint from the presence of ashes or dirt are entirely disposed of. For the same reason very little flux is required. Our artist has tried to give an idea of the appearance of two bars at the instant of welding (Fig. 14), when the heat is so intense that it is difficult to see anything, though the duration of the operation is so short and the heat spreads so little that it is possible to stand quite close by without discomfort. The nature of the joint produced is a little different from an ordinary weld. Instead of being hammered into a union at a red heat, the parts are actually melted together and frozen in an instant. One of the most conspicuous applications of electric heating is the electric smelting furnace. Fig. 15 is a view of the Cowles Electric Furnace, which has been in practical manufacturing operation at Lockport, New York, for a year or more, extracting aluminium and other metals which are difficult to obtain from their natural earths. Into opposite sides of a brick retort are inserted very large carbon rods about the size of a man's arm. The current is led from the generator to these rods by large cables connected to heavy copper heads which are cast solid on the outer ends of the carbon rods for the purpose of making good connection. A very strong current is passed through the substances with which the retort is filled, passing from the end of one rod to the other and heating the contents to any desired degree. The advantages of the method are that substances which when heated would attack and destroy a retort as ordinarily used may be melted without harm in this, because the molten part is surrounded by cooler material which does not attack the retort. It is also possible to build a much stronger retort, because it need not be built to have a fire under it, and thin, so that the heat can reach to the interior. On the contrary, it is built thick and strong so as to hold the heat. It therefore requires very much less expense in electric current for fuel than it would if the heat were applied externally. It has been possible to perform chemical manufacturing processes successfully in this retort which were not practicable before on account of the destructive nature of the substances to be treated. Another feature of the process is the use of charcoal mixed with the substances for the double purpose of carrying the electricity through the substances and converting it into heat as it passes across the retort, and at the same time absorbing oxygen from and refining the substances, or, as it is known in metallurgy, acting as a "reducing agent." By means of this furnace several substances which contain valuable metals, but which were very hard to decompose, are easily torn apart and the metals obtained. The company is doing a large business supplying the aluminium bronzes at prices low enough to compete with brass, while formerly the prices of these alloys were so high as to put them out of the question.

The project of using electricity for the execution of criminals is receiving a great deal of attention, the report of the committee recently appointed to investigate and consider it having been unanimous in its favor. There seems to be no good reason why it should not immediately be adopted. Two things can be said in its favor without the possibility of denial—that it is painless, and that it is instantaneous and sure. It will probably be objected to by some on the ground that it will attach some unpleasant associations to electricity, and perhaps create an unwarranted fear of it; but part of this is sentiment, and as for the rest, electricity ought to be as well able to bear the burden as hemp and steel have been. A slight current of electricity at very high pressure, when applied to the nerves, will produce instant death before the nerves can act to carry any sensation to the brain, and for this reason it must be the most humane means of execution. The apparatus for applying it, as recommended by the recent commission, is depicted in Fig. 16. A strong chair has one electric connection at the top, consisting of a brass strap to encircle the head, and the other connection on the seat, consisting of a brass plate, upon which the criminal is seated. These are connected by wires to a machine which generates very high pressure electricity. One of the wires from the generator enters a switch by which the current may be turned on when the death-signal is given. The current will not pass through the clothing when perfectly dry, but sufficient connection may be made by moistening the brass seat. The lower connection might be made at the feet, but it is unnecessary to send the current through the legs, and it would be easier to keep the criminal seated than to keep his feet in contact with a plate. To understand the difference between electric currents that are dangerous to life and those that are not, it is well to remember that the human body is not a good conductor of electricity, consequently very high pressure is required to force enough into it to cause injury or death, while very little in quantity will kill if the pressure is great enough to force it in. The currents used for heating, etc., on the contrary, owe their effects entirely to the great quantity of electricity used, while the pressure is very low. The pressure of the currents used in the surgical instruments described is so low that the current cannot be felt at all.

In conclusion, we show two of the latest inventions in that art which made the first practical use of electricity, namely, the telegraph. One is a telegraph by means of which messages may be sent to and from a railroad train when travelling at any speed. The surprising feature of this invention is that there is no connection between the train and the telegraph wire beside the track, over which the messages travel to the station, after jumping from the car to the wire. The message is telegraphed from inside the car to the tin roof of the car, and reaches the regular telegraph wire along the track by means of lines of force which each signal throws through the air as soon as it reaches the roof. The signals created in the main line in this way are much fainter than the ordinary telegraph signals, a difficulty, however, which is easily overcome by using more sensitive receiving instruments. The

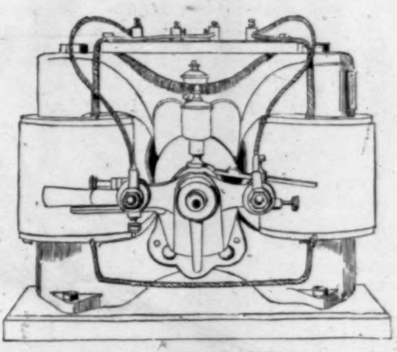


Fig. 10.—TYPICAL MOTOR.

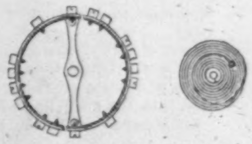


Fig. 11.—NON-MAGNETIC WATCH WHEEL AND SPRING.

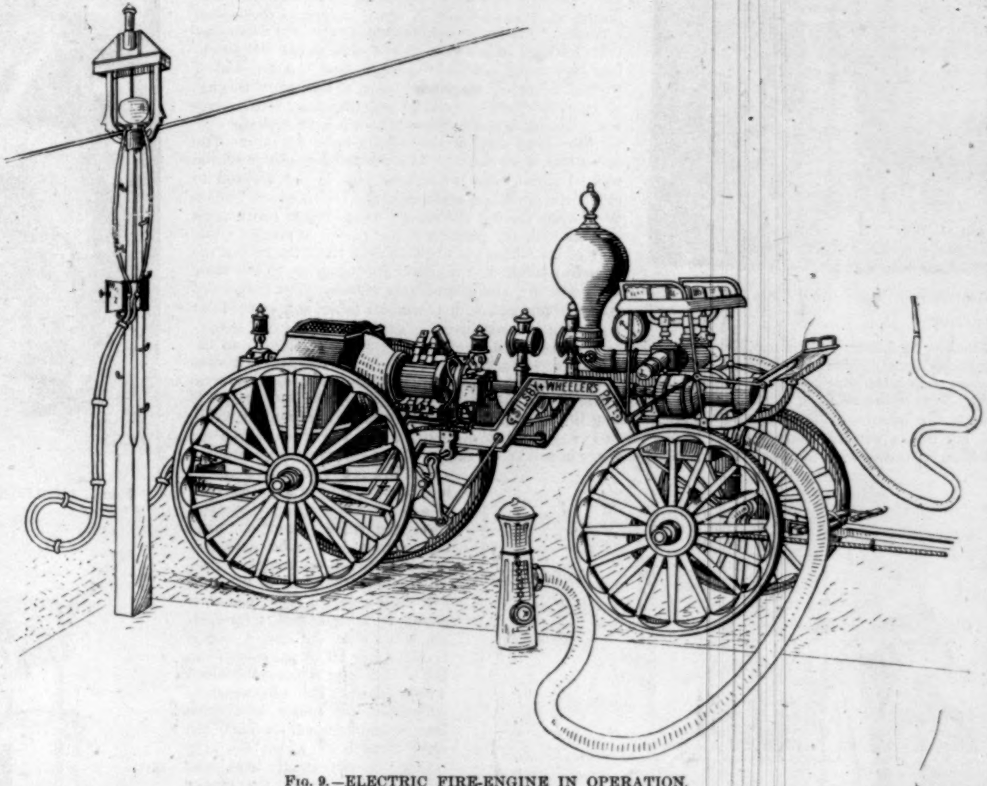


Fig. 9.—ELECTRIC FIRE-ENGINE IN OPERATION.

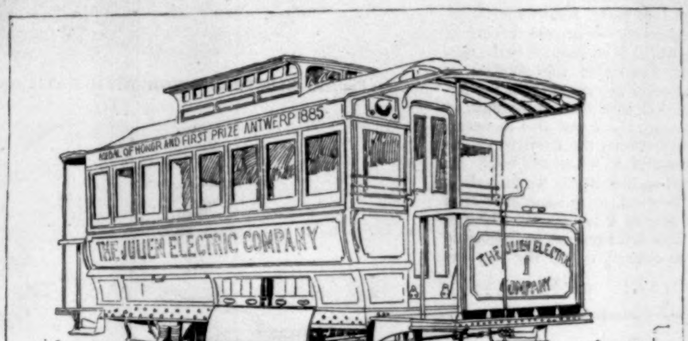

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Fig. 8.—STREET-CAR PROPELLED BY STORAGE BATTERIES.

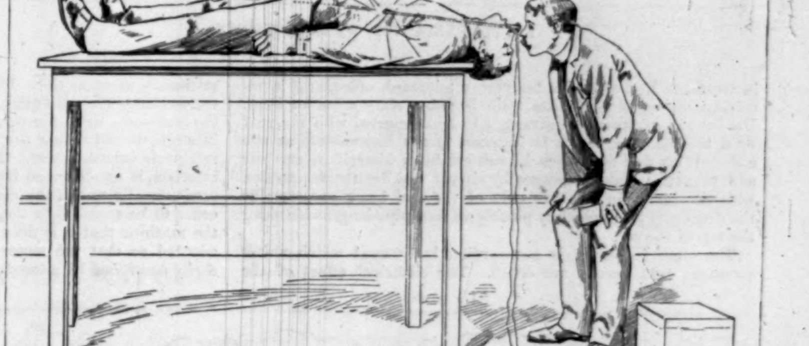

Fig. 12.—EXAMINING THE STOMACH BY ELECTRIC LIGHT.